

DOCUMENT RESUME

ED 180 407

HE 012 153

TITLE Accountability of Educational Institutions for Federal Funds and the Effectiveness of Federal Audits. Hearings Before a Subcommittee of the Committee on Government Operations, House of Representatives, Ninety-Sixth Congress, First Session. (July 17, 18, and 19, 1979).

INSTITUTION Congress of the U. S., Washington, D. C. House Committee on Government Operations.

PUB DATE Jul 79

NOTE 266p.; Not available in paper copy due to marginal legibility.

AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, DC

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.

DESCRIPTORS *Accountability; Compliance (Legal); Contracts; Educational Finance; *Federal Aid; Federal Regulation; Government Role; Government School Relationship; Grants; Health; Hearings; Higher Education; Medical Research; *Program Administration; *Research Projects; *Scientific Research

IDENTIFIERS *Audits; Department of Health Education and Welfare; General Accounting Office; Harvard University MA; Johns Hopkins University MD; *National Institutes of Health; Office of Management and Budget

ABSTRACT

Hearings of the House of Representatives Subcommittee on Government Operations on how educational institutions that receive federal grants and contracts for health research and other restricted purposes account for the use of the funds are presented. The hearings also examined the quality and effectiveness of federal financial audits, which are the principal tool used by the government to ascertain that the funds have been spent for the intended purposes. Testimony is presented from the General Accounting Office, two research scientists who have had personal experience with the management of National Institutes of Health (NIH) grant funds in major universities, the Department of Health, Education, and Welfare (HEW), the Office of Management and Budget (OMB) and spokesmen for the academic institutions and the research community. Among the topics addressed are the following: OMB's revised Circular A-21 (Cost Principles for Educational Institutions), management of NIH grants by the Harvard School of Public Health and the department of biology at Johns Hopkins University, and the role of the HEW Audit Agency. (SW)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

HE
ACCOUNTABILITY OF EDUCATIONAL INSTITUTIONS
FOR FEDERAL FUNDS AND THE EFFECTIVENESS
OF FEDERAL AUDITS

ED180407
HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON
GOVERNMENT OPERATIONS
HOUSE OF REPRESENTATIVES
NINETY-SIXTH CONGRESS
FIRST SESSION

JULY 17, 18, AND 19, 1979

Printed for the use of the Committee on Government Operations

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION



THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1979

51-111

COMMITTEE ON GOVERNMENT OPERATIONS

JACK BROOKS, Texas, *Chairman*

L. H. FOUNTAIN, North Carolina
DANTE B. FASCELL, Florida
WILLIAM S. MOORHEAD, Pennsylvania
BENJAMIN S. ROSENTHAL, New York
FERNAND J. ST GERMAIN, Rhode Island
DON FUQUA, Florida
JOHN CONYERS, Jr., Michigan
CARLIS COLLINS, Illinois
JOHN L. BURTON, California
RICHARDSON PREYER, North Carolina
ROBERT F. DRINAN, Massachusetts
GLENN ENGLISH, Oklahoma
ELLIOTT H. LEVITAS, Georgia
DAVID W. EVANS, Indiana
TOBY MOFFETT, Connecticut
ANDREW MAGUIRE, New Jersey
LES ASPIN, Wisconsin
HENRY A. WAXMAN, California
FLOYD J. FITHIAN, Indiana
PETER H. KOSTMAYER, Pennsylvania
TED WEISS, New York
MIKE SYNAR, Oklahoma
ROBERT T. MATSUI, California
EUGENE V. ATKINSON, Pennsylvania

FRANK HORTON, New York
JOHN N. ERLNBORN, Illinois
JOHN W. WYDLER, New York
CLARENCE J. BROWN, Ohio
PAUL N. McCLOSKEY, Jr., California
THOMAS N. KINDNESS, Ohio
ROBERT S. WALKER, Pennsylvania
ARLAN STANGELAND, Minnesota
M. CALDWELL BUTLER, Virginia
LYLE WILLIAMS, Ohio
JIM JEFFRIES, Kansas
OLYMPIA J. SNOWE, Maine
WAYNE GRISHAM, California
JOEL DECKARD, Indiana

WILLIAM M. JONES, *General Counsel*
JOHN E. MOORE, *Staff Administrator*
ELMER W. HENDERSON, *Senior Counsel*
JOHN M. DUNCAN, *Minority Staff Director*

INTERGOVERNMENTAL RELATIONS AND HUMAN RESOURCES SUBCOMMITTEE

L. H. FOUNTAIN, North Carolina, *Chairman*

GLENN ENGLISH, Oklahoma
LES ASPIN, Wisconsin
TED WEISS, New York
MIKE SYNAR, Oklahoma
WILLIAM S. MOORHEAD, Pennsylvania

JOHN W. WYDLER, New York
CLARENCE J. BROWN, Ohio
OLYMPIA J. SNOWE, Maine

EX OFFICIO

JACK BROOKS, Texas

FRANK HORTON, New York

DELPHIS C. GOLDBERG, *Professional Staff Member*

JAMES R. NAUGHTON, *Counsel*

GILBERT S. GOLDHAMMER, *Consultant*

MARGARET M. GOLDHAMMER, *Secretary*

(II)

CONTENTS

	Page
Hearings held on—	
July 17.....	1
July 18.....	125
July 19.....	221
Statement of—	
Bartlett, Dr. Thomas A., president, Association of American Universities.....	183
Binkley, Dr. Max A., vice president for finance, Colorado State University, representing the Committee on Governmental Relations, National Association of College and University Business Offices.....	170
Cohen, Dr. Phin, scientist and physician; accompanied by Albert F. Cullen, Jr., attorney.....	28
Cutter, W. Bowman, Executive Associate Director, Office of Management and Budget; accompanied by John Lordan, Chief, Financial Management Branch.....	221
Heard, Dr. Alexander, chancellor, Vanderbilt University, representing the Association of American Universities.....	156
Kirschenmann, Henry G., Jr., Director, Office of Grant and Contract Financial Management, Department of Health, Education, and Welfare; accompanied by Matthias Lasker, Office of the Secretary and Director of the Division of Grants Policy and Regulations Development.....	125
Klebe, Dr. Robert J., associate professor, University of Texas Medical Branch; accompanied by Joseph Gebhardt, attorney; and Louis Clark, Government Accountability Project of the Institute for Policy Study.....	90
Sewel, Dr. William, chairman, National Commission on Research; accompanied by Gregory Fusco, staff director.....	245
Stepnick, Edward W., Associate Inspector General for Auditing, Department of Health, Education, and Welfare.....	116
Stugart, Harold, Deputy Director, Financial and General Management Studies Division, General Accounting Office; accompanied by George L. Egan, Associate Director, Financial and General Management Studies Division; Clifford Melby, Audit Manager, Procurement and Systems Acquisition Division; and Matthew Solomon, Assistant Director, Human Resources Division.....	3
Letters, statements, etc., submitted for the record by—	
Bartlett, Dr. Thomas A., president, Association of American Universities: Prepared statement.....	186-194
Binkley, Dr. Max A., vice president for finance, Colorado State University, representing the Committee on Governmental Relations, National Association of College and University Business Offices: Prepared statement.....	173-182
Comments on statement made in the testimony of HEW Assistant Inspector General for Auditing, Edward W. Stepnick.....	204-205
Cohen, Dr. Phin, scientist and physician: Harvard University memorandums.....	43-49
Prepared statement.....	53-59
Cutter, W. Bowman, Executive Associate Director, Office of Management and Budget: Examples of what constitutes a major or significant change in workload.....	229
Information concerning "significant changes" in workload distribution.....	244-245
May 7, 1979, memorandum concerning financial priorities program.....	226-227

IV

Letters, statements, etc., submitted for the record by—Continued

Fountain, Hon. L. H., a Representative in Congress from the State of North Carolina, and chairman, Intergovernmental Relations and Human Resources Subcommittee:

Article from Science of July 6, 1979, by Comptroller General Staats, entitled "Federal Research Grants: Maintaining Public Accountability Without Inhibiting Creative Research".....	Page 8-10
August 6, 1979, letter from Dr. Klebe responding to President Muller's letter of July 16, 1979.....	113-115
December 30, 1974, letter to Dr. George S. Benton, vice president for Homewood divisions, Johns Hopkins University from James W. Schriver, Director, Division of Management Survey and Review, re grant irregularities.....	98-99
Information concerning reports of expenditures on grants and contracts.....	132-140
July 16, 1979, letter from President Steven Muller, the Johns Hopkins University re Dr. Klebe's.....	111-112
Nov. 2, 1978, letter from HEW Secretary Califano to Mr. Charles B. Saunders, Jr., American Council on Education re magnitude of Federal support in post-secondary education.....	213
Heard, Dr. Alexander, chancellor, Vanderbilt University, representing the Association of American Universities: Prepared statement.....	159-169
Klebe, Dr. Robert J., associate professor, University of Texas Medical Branch:	
Account transfer statement.....	95
April 12, 1973, memorandum concerning charges against grants.....	92-94
Curriculum vitae.....	104-109
May 1, 1973, letter from Dean Owen extending contract for 1 year.....	96
Sewell, Dr. William, chairman, National Commission on Research: Commission brochure.....	252-254
Stepnick, Edward W., Associate Inspector General for Auditing, Department of Health, Education, and Welfare:	
Information concerning frequency of audits for educational institutions.....	149-150
HEW cash advance system information.....	154-155
Stugart, Harold, Deputy Director, Financial and General Management Studies Division, General Accounting Office: May 14, 1979, letter to Richard A. Sessions, Administrative Director, Center for Ulcer Research and Education from Comptroller General Staats, re comments on paper entitled "Federally Sponsored Research at Educational Institutions—A Need for Improved Accountability".....	18-19

APPENDIX

Statement submitted by Harvard University.....	259
--	-----

ACCOUNTABILITY OF EDUCATIONAL INSTITUTIONS FOR FEDERAL FUNDS AND THE EFFECTIVENESS OF FEDERAL AUDITS

TUESDAY, JULY 17, 1979

HOUSE OF REPRESENTATIVES,
INTERGOVERNMENTAL RELATIONS
AND HUMAN RESOURCES SUBCOMMITTEE
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:40 a.m., in room 2203, Rayburn House Office Building, Hon. L. H. Fountain (chairman of the subcommittee) presiding.

Present: Representatives L. H. Fountain, Ted Weiss, Mike Synar, and John W. Wydler.

Also present: Dr. Delphis C. Goldberg, professional staff member; Gilbert S. Goldhammer, consultant; and Thomas Houston, minority professional staff, Committee on Government Operations.

Mr. FOUNTAIN. The subcommittee will come to order.

We are short some of our members momentarily because our parent committee, Government Operations, is meeting. The chairman of the committee is extremely interested in taking action today on a bill to establish a new Cabinet-level Department of Education.

This subcommittee has had a long-standing interest, extending back to 1959, in the management of HEW's programs for the support of health research and training in non-Federal institutions. Those programs, administered principally by the National Institutes of Health, are aimed at improving the public health through the conquest of disease and the development of preventive measures.

While all of us, I am sure, support these goals, the subcommittee's past investigations have focused on identifying ways in which these important programs could be strengthened through better management. Numerous hearings were held during the 1960's by this subcommittee, and formal committee reports, based on those hearings and related staff investigations, were issued in 1961, 1962, and 1967. More recently, in the last Congress, the subcommittee held hearings to examine the progress and problems of the national cancer program.

I am pleased to say that significant improvements have been made in the management of NIH and other Public Health Service grant programs in response to the subcommittee's recommendations. The subcommittee is presently reviewing NIH grant management policies and practices, and I anticipate that we will hold further hearings on this subject later this year.

(1)

The subcommittee's hearings this week are concerned with a closely-related matter; namely, how the educational institutions which receive Federal grants and contracts for the conduct of health research and other restricted purposes account for the use of those funds. The hearings will also examine the quality and effectiveness of Federal financial audits, which are the principal tool used by the Government to ascertain that the funds have been spent for their intended purposes.

I say "intended purposes" because there seems to be an attitude, often shared by the bureaucracy, that if the money is spent for a nonprofit purpose that is contrary to the intent of a grant, it is, nevertheless, a legitimate expenditure. This, of course, is not true.

Institutional accountability, as measured by Federal audit findings, appears to be a serious and growing problem. Federal agency audits of universities and other educational institutions in recent years have identified very large amounts of Federal funds which the auditors believe were improperly expended, and even larger expenditures which the auditors could not verify because of the inadequacy of the accounting systems and records of the schools involved.

In numerous instances, the audit findings remain a matter in dispute between the parties. Many of the audit disallowances, as well as subsequent Federal claims for repayment, have persisted for years without a satisfactory resolution. This, I believe, is an untenable situation that calls for a speedy solution in the interest of everybody, particularly the institutions and the recipients of research grants. I am hopeful that these hearings will clarify the issues and help bring the universities and the Government together in resolving these problems, which some observers believe threaten the very existence of the Nation's research effort.

The amount of money involved is sizable. For example, in fiscal year 1978, the Public Health Service alone awarded \$4¼ billion in grants, and an additional \$966 million in contracts, just a little bit below the entire national budget when Franklin Roosevelt came to office. More than half of those grant dollars went to academic institutions.

The subcommittee will take testimony this morning from the General Accounting Office, an agency of the Congress, and from two research scientists who have had personal experience with the management of NIH grant funds in major universities. On Wednesday and Thursday the subcommittee will take testimony from officials of the Department of Health, Education, and Welfare and the Office of Management and Budget, as well as from spokesmen for the academic institutions and the research community.

Our first witness this morning is Harold L. Stugart, Deputy Director of GAO's Financial and General Management Studies Division.

Mr. Stugart, we are pleased to have you with us. We appreciate the work which you and your colleagues are doing in the GAO in connection with the subject matter of these hearings. We would be pleased to hear from you at this time.

STATEMENT OF HAROLD STUGART, DEPUTY DIRECTOR, FINANCIAL AND GENERAL MANAGEMENT STUDIES DIVISION, GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY GEORGE L. EGAN, ASSOCIATE DIRECTOR, FINANCIAL AND GENERAL MANAGEMENT STUDIES DIVISION; CLIFFORD MELBY, AUDIT MANAGER, PROCUREMENT AND SYSTEMS ACQUISITION DIVISION; AND MATTHEW SOLOMON, ASSISTANT DIRECTOR, HUMAN RESOURCES DIVISION

Mr. STUGART. Thank you, Mr. Chairman.

Mr. FOUNTAIN. Please introduce your colleagues who are with you.

Mr. STUGART. I would be happy to do that.

On my right is Mr. Clifford Melby, who is an audit manager in our Procurement and Systems Acquisition Division. He was the principal auditor on a 1978 report issued by GAO on "Federally Sponsored Research at Educational Institutions, a Need for Improved Accountability."

On my left is Mr. George Egan, Associate Director of the Financial and General Management Studies Division. He is responsible for all of our work involving audit standards and auditing in other agencies.

It is a pleasure for me to be here this morning to represent the Comptroller General at this very important hearing on the Office of Management and Budget's Circular A-21, Cost Principles for Educational Institutions.

I would like to relate the revised Circular A-21 to some recent audit work that GAO has done that looked at accountability of educational institutions receiving Federal grants and contracts.

GAO has always supported the need for maintaining accountability for public funds regardless of how or to whom they are made available. The Comptroller General recently addressed this issue in a speech before the National Graduate University's 19th Institute on Federal Research Grants. I understand that this speech will be inserted in the record but I would like to emphasize just a few of the points he made.

Public pressure for accountability in Government has increased significantly in recent years. This pressure for financial accountability applies to all programs of the Government, and colleges and universities are not any different than any other institutions which receive public funds—in other words, public money must be accounted for. Public pressure for fiscal accountability of funds made available for university research is especially called for because the public often has little understanding of what the research actually entails. Fiscal controls at least offer some degree of assurance that funds are being used as intended on authorized research.

We recognize that precise, uniformly categorized accounting systems may not be appropriate for university research, with its emphasis on individual autonomy. The key issue in our judgment, however, is how to assure appropriate stewardship for Federal funds spent in

support of research without imposing excessive controls, direction, and administrative burden on research grantees.

There is an equal need for university cognizance and understanding of the Government's role with respect to accountability for public funds. University officials also need to thoroughly appraise their present financial procedures to assure compliance with existing Federal requirements, as well as to present university views concerning proposed changes to these requirements. Mutual cooperation between the universities and Federal agencies is a must if acceptable solutions to accountability are to be found.

I would like to discuss just briefly OMB's revisions to Circular A-21. OMB's revised Circular A-21, Cost Principles for Educational Institutions, issued in February 1979, provides specific principles on distribution methods, identification and assignment of indirect costs, and standards for selected items of costs. However, this circular, like its predecessor, merely establishes the principles for determining costs applicable to grants, contracts, and other agreements with educational institutions.

Consequently, for the circular to be effective the accounting practices of the individual educational institution must support the accumulation of costs as required by the principles, and must provide for adequate documentation to support costs charged to grants and contracts.

In addition, the cognizant Federal agencies involved in negotiating indirect cost rates and the auditing of them must assure that institutions are generally applying the cost principles on a consistent basis.

In the past the accounting practices of some educational institutions did not support the accumulation of costs chargeable to Federal grants and contracts as required by the principles. Our review of the effectiveness of HEW's auditing of these costs charged by educational institutions disclosed this problem as one of the factors impacting on the effectiveness of such audits.

The provisions of the circular become effective October 1, 1979, and institutions are required to implement them as of the start of their fiscal year beginning after that date. We, along with other Federal agencies, were consulted on the provisions of the circular before its issuance. We believe that if the provisions are properly implemented and coupled with effective auditing, they should provide the degree of accountability of public funds needed to insure that the Federal Government bears its fair share of total costs of research.

Now I would like to discuss briefly a recent review we made of Federal audits of funds made available to institutions of higher education. In fact, I was informed that the Comptroller General signed the report this morning. It had been made available in draft to this subcommittee.

Each year the Federal Government provides financial support to over 2,500 institutions of higher education in the form of grants and contracts for research and development, facilities and equipment, fellowships and traineeships, and general support. During fiscal years 1974 through 1976 Federal support amounted to about \$14.4 billion and was provided by 14 Federal agencies including the Departments of Health, Education, and Welfare; Agriculture; Defense; Energy;

the National Science Foundation; and the National Aeronautics and Space Administration.

Under a cross-servicing arrangement, HEW is responsible for auditing Federal funds provided to almost all of the 2,500 institutions and for providing the results of these audits to the sponsoring agencies.

We evaluated the results of audits made during fiscal years 1974 through 1976 at the 20 institutions that received the most Federal support during fiscal year 1975 and for which HEW was assigned auditing responsibility. These 20 institutions received over \$3.7 billion of Federal support during the three fiscal years. Our primary objective was to determine the adequacy of HEW's audit coverage of Federal grants and contracts administered by these institutions.

Although HEW devotes a substantial portion of its auditing resources to auditing Federal funds administered by institutions of higher education, we concluded that some of the audits are not as effective as they could be because:

One, they were not timely.

Two, the auditors in some cases could not, because of an inadequate university accounting system, render an opinion on the allowability of costs charged to Federal grants and contracts—we think this is an important factor because it gets right to the heart of accountability.

Three, characteristics of a quality audit with respect to scope of coverage, sufficiency of evidence, completeness of reporting, and supervision of staff were lacking in some instances.

To be effective and of maximum use to management, an audit must be timely; that is, it must be conducted with reasonable frequency. The Office of Management and Budget has defined reasonable frequency as annually, but not less frequently than every 2 years. However, we found that some institutions are not audited that often, and others may not be audited at all.

For example, the Audit Agency's Denver office is responsible for auditing approximately 75 institutions. Although it had established a 3-year cycle for auditing the larger institutions, between 1970 and early 1977, it had performed direct-cost audits at only 15, or about 20 percent, of its assigned institutions.

Similarly the New York regional office is responsible for auditing approximately 300 institutions, about 100 of which have appreciable amounts of research funds. A regional official told us that because of other priorities, only two or three direct-cost audits can be performed in any one year.

Similar statistics could be cited for the Chicago and Boston regional offices.

Some of the Audit Agency's audits are not as effective as they could be because, as a result of inadequate university accounting systems, HEW's auditors are unable to determine the amount of unallowable costs charged to Federal grants. In such situations the auditors are forced to simply report that they cannot render an opinion on the allowability of the funds. In some cases, the amount of the funds on which the auditor could not render an opinion was significant.

For example, we reviewed a direct-cost audit for one university that covered three fiscal years between July 1, 1972, and June 30, 1975. During this period the university administered over \$111 million in

Federal grants and contracts. In its final report the Audit Agency stated that the university could not adequately support personal service costs of \$53.7 million charged to Federal grants and contracts because such charges were based primarily on budget estimates and anticipated efforts of the researcher rather than, as required by Federal regulation, on after-the-fact certification of the charges by knowledgeable personnel.

As a result, the Audit Agency was unable to render an opinion on the allowability of the costs. Because this audit did not reach a conclusion on the allowability of 48 percent of the audited funds, there is no certainty that valid charges were made to Government grants.

Again, this problem was not limited to one university. At another, the Audit Agency reported that it could not render an opinion on the propriety of \$34 million of salaries and wages charged to Federal grants and contracts during the period July 1, 1969, through June 30, 1972.

The report on a third stated that an opinion on the allowability of approximately \$58 million in payroll charges to grants and contracts during the period July 1, 1971, through June 30, 1975, could not be expressed.

The magnitude of this problem can be seen in the Audit Agency's fiscal year 1977 statistics. During that year, it audited \$1.2 billion in Federal grants and contracts to institutions of higher education. The Agency reported that of the \$1.2 billion audited, expenditures of \$419.7 million were not adequately documented. Stated another way, the Audit Agency believed that 35 percent of all expenditures it audited were not properly documented.

Officials of the Audit Agency informed us that they were seriously concerned about their ability to render an opinion on the allowability of cost items because of inadequacies in the accounting systems of some educational institutions. In fact, the Assistant Inspector General for Auditing informed us that HEW is considering the feasibility of imposing sanctions when institutions do not correct system deficiencies brought to their attention that would require auditors to disclaim an opinion on the allowability of charges to Federal grants.

The last problem discussed in our report is the quality of HEW audits of universities. In this regard, all auditors are guided by auditing standards concerning the quality and scope of audit efforts and the characteristics of a professional and meaningful audit report. Standards are used as both a guide for and a measure of the quality of audit performance. Thus, auditing standards are the key to audit quality. The American Institute of Certified Public Accountants—AICPA—and the Comptroller General of the United States, have issued separate statements of auditing standards.

The AICPA standards apply to those audits that are made to express an opinion on an organization's financial statements. The extent of testing of accounting and related records is determined by the auditor, based on professional judgment and experience.

The Comptroller General's standards incorporate AICPA standards, but require a broader inquiry into grantee compliance with Federal laws and regulations than is required by the AICPA standards. In evaluating the quality of HEW's audits of institutions of higher

education, we used the GAO standards because Federal audit policy requires that audit performance be in line with those standards.

We found that HEW's audits of Federal funds administered by institutions of higher education are not always as effective as they could be because they lacked some of the characteristics of a quality audit with respect to such matters as audit scope, amount of evidence gathered, the completeness of audit reports, and supervision of audit staff. This, of course, lessened the usefulness of the audit results.

We recognized that a shortage of audit resources has significantly contributed to these shortcomings and thus recommended that the Inspector General assess the priorities to which his audit staff is assigned to see if additional effort could be devoted to university audits. To some extent this would take care of the audit cycle problem.

In addition, we recommended that the Secretary of HEW:

One, establish a cycle for auditing the institutions assigned to it that will result in more timely audits.

Two, audit in sufficient depth to establish the allowability of costs claimed by institutions.

Three, insure that audits are conducted in accordance with the GAO standards.

In response to our report, the Inspector General of HEW stated that:

One, the Department has not been able to implement a firm cycle for auditing institutions of higher education because of insufficient audit resources.

Two, the Audit Agency will continue to try to develop effective "extended" audit procedures to close the "accountability gap" created by unauditable university systems.

Three, the Audit Agency will provide new policy guidance on audit technicalities to improve future audits.

He also said that recently, additional audit work has been done or scheduled at four universities.

Relative to the accountability gap, the Inspector General said that HEW has a major program of reform underway to include, one, simpler Federal regulations without loss of safeguards; two, improved procedures for the prompt resolution of audit findings; three, early audit review service on proposed changes in institutions' accounting systems; and four, sanctions against institutions and individuals when corrective actions are not taken in a reasonable time period.

In summation, we believe that the implementation of A-21, coupled with timely and effective auditing and reporting, should provide greater accountability of public funds at educational institutions.

This concludes our prepared testimony, Mr. Chairman. I would be happy to take any questions you might have at this time.

Mr. FOUNTAIN. Thank you very much, Mr. Stugart, for a very informative statement.

Before we begin our questioning, I would like to take this opportunity to place in the record a paper by Comptroller General Staats, to which you referred in your statement. This paper is entitled "Federal Research Grants: Maintaining Public Accountability Without Inhibiting Creative Research." It appeared in Science, volume 205, July 6, 1979.

[The article referred to follows:]

Federal Research Grants

Maintaining public accountability without inhibiting creative research

Elmer B. Staats

Finding an appropriate working definition of accountability for public funds used to support basic research at universities is a matter of great importance. This topic currently is eliciting wide interest and kindling very strong reactions in concerned parties. In this article I will describe the necessity for both accountability and the freedom essential to creative research. Although I will focus on university research, many of the same issues arise in relation to other institutions performing research, development, demonstrations, training, or other services under federal grants.

Introduction

Few people, I believe, would question that science and technology have made basic contributions toward meeting societal needs. In almost every sector of our economy, almost every aspect of our modern lives, science and technology have major impacts. This was appropriately stated by President Carter in his Science and Technology Message to Congress on 27 March.

We look to the fruits of science and technology to improve our health by curing illness and preventing disease and disability. We expect science and technology to find new sources of energy, to feed the world's growing population, to provide new tools for our national security, and to prevent unwise applications of science and technology. The health of our economy has been especially tied to science and technology; they have been key factors in generating growth, jobs, and productivity through innovation. Indeed, most of the great undertakings we face today as a nation have a scientific or technological component.

Whether short- or long-term in its effects, basic research is the fundamental seed for scientific and technological advancement. The importance of basic re-

search has been recognized by the federal government, as shown by the following three trends:

1) From 1960 to 1978, federal spending for basic research has almost tripled (in constant 1972 dollars) from around \$1 billion to approximately \$2.8 billion.

2) During this time, the importance of the universities as performers of basic research has increased greatly. In 1958, universities performed 32 percent of all U.S. basic research. This figure rose to 52 percent by 1978.

3) Finally, in 1978 the universities depended on the government for 72 percent of total university support for basic research and, on the other hand, 54 percent of total federal funds spent on basic research was used to support basic research at universities.

It is thus apparent that the federal government and the universities have become very dependent on one another for the performance and support for our nation's basic research. However, there are signs of strain in this partnership. A report entitled *The State of Academic Science* (1) has recently found substantial anxiety in the research community over the future of this relationship. The National Science Board's *Science at the Bicentennial* (2) also revealed the growing tensions. Last November, Jerome Wiesner, president of the Massachusetts Institute of Technology, gave an address in which he expressed "grave concern that the basic federal-academic relationship . . . is floundering. . . . [It] has begun to deteriorate and come apart so badly that we have reached a point of crisis that could see the effectiveness of this nation's major research universities seriously curtailed at a time when it sorely needs to be enhanced."

In recognition of the importance of these tensions, an independent National Commission on Research created in Oc-

tober 1978 is taking an in-depth look at the issues involved. A major point of contention and area of study of the commission is the determination of an appropriate operating definition of accountability. The fundamental dilemma here is how to achieve adequate accountability for public funds without imposing excessive controls, direction, and administrative burden on research grantees, which would inhibit freedom of intellectual inquiry and efficient performance of research. Although much concern has been expressed about this issue, at this time there is insufficient evidence to determine the magnitude of the problem.

As a first step toward improving the relationship between the federal government and the universities, there must be discussion and understanding between sponsors and performers. Each must recognize how the other operates, the degree of flexibility, the pressures and constraints, and so on. With this in mind, I will now briefly describe important attributes of the research process and then of the need for federal accountability, with particular emphasis on what accountability means in various contexts.

The Nature of Academic Research

There are several characteristics of university basic research which are relevant to a discussion of accountability and which I believe need to be understood. I would like to summarize some of those characteristics now to provide context for my remarks.

The pluralism so endemic to the way this country supports and performs science and technology is especially characteristic of research universities. Not only is each university an independent entity, but its research is performed in independent departments, which, in turn, are composed of individual, autonomous researchers. The structure and organization of this environment are generally nonhierarchical and tend to be loose and flexible with much autonomy of the individual parts.

The keystone of the research process, however, is the individual researcher or the generally small group of researchers who perform the work. The process of investigation itself, like the overall "climate," is characterized by a lack of hierarchy. The researcher conceives, di-

The author is Comptroller General of the United States, Washington, D.C. 20548. This article is based on an address to the National Graduate University's 19th Institute on Federal Funding, Washington, D.C., 10 April 1979.

SCIENCE, VOL. 205, 6 JULY 1979

rects, performs, and publishes his work, often in conjunction with graduate students, who are essentially practicing apprentices. He is his own director, his own boss. He has a heightened sense of self-reliance and autonomy, and this serves as crucial motivation for his work. As a consequence, a researcher will be particularly sensitive to any externally imposed constraints on his time and investigative effort.

In fact, such autonomy has come to be viewed by many scientists, as well as nonscientists, as necessary to scientific excellence. It has, however, served us well; our science and technology effort has been a prodigious success by any standards.

This situation has been strongly encouraged by the type of financial support the government has provided for basic research. Project grant funding began its development in various private foundations before World War II. After the war, it was adopted as a special type of government contract which recognized the need to avoid detailed and short-term political control of research. I will return to the unique status of grants in a moment. Peer review remains the primary system for selecting proposals to be funded. This system is an outgrowth of a fundamental type of accountability to which all scientific research is subjected; there is an intensive scrutiny that scientists aim at each other's work, a continual testing and retesting of experiments, ideas, and theories that is the rite of passage for all research. This type of scrutiny is the way scientists establish the reliability and supportability of their working methods and results. Peer review represents an institutionalized form of this and is essentially a *scientific* method of accounting for research, reviewing science on its own terms.

Despite recent criticism, it appears, in principle, to be the best way we know to determine which research must merit support. In general terms, peer review is the method by which the government is accountable to the public for its selection of science to support. However, there are other types of accountability which are integral to federal sponsorship of research.

The Government's Role in Accountability

This brings me to discussing the general characteristics of the government's position with regard to accountability. As we are all aware, the government, as the steward of public monies entrusted

to it, acts as sponsor for activities which will enhance our quality of life. It is in the broadest terms accountable to the public for engaging high quality services. Such accountability is very complex and involves several separate facets: the need to be responsible for selection of the performer, and to ensure that the appropriate procedures or methods are used by the performer, that the resulting service is of acceptable quality and meets a recognized need, and that the public funds are spent in accord with the terms of the contract.

I would like to emphasize that the basic intention of a research grant is to support, not to procure in the sense that one procures hardware. It inherently involves a long-term view, in that it supports and encourages effort which is characterized by its perennial and unspecific potential for social benefits, not by its ability to generate specific products or services. In the context of government support, scientific research is a particularly unique and esoteric endeavor. Its primary form of accountability—peer review—reflects this uniqueness. Peer review still appears to be the best method of accounting for the substance of scientific research, as opposed to other aspects, such as the finances.

Most of the controversy focuses primarily on financial accountability. Financial accountability is concerned with monitoring whether funds are spent for their intended, agreed-upon purpose. The government carries a strong mandate from the public to ensure that public funds are spent as intended without diversion, waste, or fraud.¹

Recently, public pressure for accountability in government has increased significantly. This pressure can be attributed to several factors.

1) As continuing inflation makes people more aware of their personal budget limitations, more public attention is given to how tax dollars are spent. This is best reflected in initiatives to limit taxing authority and public expenditures.

2) There appears to be increasing public mistrust of large institutions. This is due in major part to exposures of carelessness and instances of outright fraud. This mistrust is not diminished by arguments that these instances may represent only a minor percentage of public expenditures.

3) There also has been increasing tightening of federal spending, which includes certain cuts in the budget. Consequently, there is greater competition for increasingly scarce funds.

4) Related to this budget tightening

and competition over funds is an increasing degree of congressional oversight of federal programs.

This pressure for financial accountability applies to all programs of the government, in all instances where the government has stewardship for public funds. Universities are not different from other institutions that receive public funds—public money must be accounted for. Public pressure for fiscal accountability for university research is especially called for since the public understands little of what the research actually entails. Fiscal controls at least offer some degree of assurance that funds are being used as authorized on research.

In addition, as I previously mentioned in describing the research process, the other major form of accountability, that for the substance of the expenditure, is already taken out of the public domain by the peer review system, which is internal to the research process. It therefore stands to reason that the public requires increased fiscal accountability for university research in order to retain some check on public research expenditures.

This very real, and frankly legitimate, demand for strong accountability presents a major challenge to the university community, as well as to the federal government. Precise, uniformly categorized accounting systems may not be appropriate for university research, with its emphasis on individual autonomy. The key issue is how to ensure appropriate stewardship for funds spent in support of research, without imposing excessive controls, direction, and administrative burden on research grantees. It is in the best interests of both the government and the universities to guard against the imposition of excessive controls, which would restrict the research freedom and autonomy and thus affect the performance of research.

What the Federal Government and Universities Must Do

The federal government must continue to provide major support for basic research in both natural and social sciences and the engineering disciplines. Sponsors must recognize that the very nature of basic research is long-term and exploratory, with little or no assurance of predetermined positive results. While it is necessary to assure wise and accountable expenditure of public funds, we in the government should seek ways to fulfill this need without inhibiting free-

dom of intellectual inquiry and risk taking.

I believe that the government should establish a long-term plan for investment in basic research. In addition, I believe that it is important to provide a stable base for funding from year to year. As longer-range plans are developed, Congress should also consider greater use of multiyear and advanced funding methods for basic research and other selected R & D efforts which require more than 1 year to complete. I stated these views in my testimony in April before the House Committee on Science and Technology.

I am pleased by the Carter Administration's support of basic research. James McIntyre, director of the Office of Management and Budget, and Frank Press, director of the Office of Science and Technology Policy, wrote a memorandum to the heads of departments and agencies last summer to advise them of the "need for providing an adequate level of basic research support" despite the constraints of budget ceilings. The letter stated: "It is the policy of this Administration to assure effective support of basic or long-term research, particularly to provide a better basis for decision-making or for dealing with long-term national problems."

We in the federal government, in regard to basic research, must understand that fiscal accountability is only a means of insuring that research is carried out. Such accountability is not an end in itself. With this in mind, the government needs to review how standards for accountability are affecting university research. We need to recognize the unique needs of the universities—that accounting standards developed by the government for nonacademic institutions may not be appropriate for uniform application to universities. Thus, accountability must be achieved in such a way as to minimize controls and time-consuming administrative procedures, which can detract from research. I might add that it may be constructive for the government to treat general health, safety, and equal employment opportunity regulations pertaining to universities in the same perspective—these regulations should be examined in light of their impacts on research and applied so that their adverse effects are minimized, while they meet the needs for which they are intended.

In administering grants for basic research, individual federal agencies must exercise sufficient oversight to ensure that the peer-review system is consis-

tent, well managed, and fair, and that adequate records are kept of the review process. The agencies must also fulfill their responsibility for financial accountability and monitor grant expenditures to ensure that the funds are expended for the purposes intended.

On the university side, it seems that several things are needed. First, although I have to some degree emphasized the unique position of university research and the importance of government officials recognizing this, there is an equal need for university understanding of the government's role with respect to accountability. There must be cognizance of the general need for public accountability in our democracy, as well as the growing pressures for this and how such pressures affect governmental relations. In general, there is a need for adaptability to a changing context: simple advocacy or looking back on former times as a "paradise lost" will not serve this need.

Second, there is a need to sit down with federal officials in the attempt to forge greater mutual understanding. University officials and researchers should explain their own special requirements in light of the fact that they, like other performers under government sponsorship, are not unique to the point of requiring exemption from fiscal accountability. The intention must be mutual cooperation so that acceptable solutions to problems of accountability can be found. An important step in this direction has been taken by the National Commission on Research in its creation of a subcommittee concerned with this subject. This subcommittee is doing an extensive review of both government and university views on accountability, and I, along with members of my staff, have met with them and discussed some of the issues involved.

More specifically, university officials need to thoroughly appraise their present financial procedures to ensure compliance with existing federal requirements, as well as to present university views concerning proposed changes to these requirements.

Also, it might be helpful for university associations and professional societies to promote greater public understanding of the nature and importance of scientific research, and of the central role of autonomy in its continued excellence. Again, rather than stressing the uniqueness of university research, focusing on what it needs to operate optimally is needed.

What the General Accounting Office Is Doing in This Area

The General Accounting Office has a great interest in the issues related to basic research. Related work currently in progress, or being planned includes the following:

1) A review, in draft, of the adequacy of Health, Education, and Welfare audits of the 20 academic institutions that received the most federal support during fiscal year 1975, and for which HEW was assigned auditing responsibility. This federal support included funds for R & D as well as for facilities and equipment, fellowships and traineeships, and other general funding. A tentative conclusion is that some of the audits are not as effective and timely as they could be.

2) A review, in draft, of indirect costs of health research, how they are computed, and why they are increasing so rapidly. Data were obtained from the analysis of questionnaire responses from 441 federal grantees and from interviews at 14 grantee institutions. This review explains why indirect cost rates cannot be meaningfully compared among grantees and demonstrates inconsistencies in the principles and practices used to make indirect cost determinations.

3) A study, in progress, of research proposal review and monitoring of grants to universities by the National Science Foundation and the National Institutes of Health to determine how well the peer review system assesses scientific accountability and whether grant monitoring by NSF and NIH is effective. For this study, we will examine 75 grants.

4) A study, being planned, which will examine federal policies and institutional relationships affecting government-industry university cooperation in the area of basic research. This study will include an examination of foreign experiences in this area.

In conclusion, there is a great challenge to all of us to find a means of ensuring accountability for money spent on research without choking off creativity. This challenge must be met by a collaborative effort between universities and the government to make certain that the U.S. capability for basic research is maintained.

References and Notes

1. B. L. B. Smith and J. I. Karkay, *The State of Academic Science*, vol. 1, *Survivors of Major Findings* (Chapman Magazine Press, New Rochelle, N.Y., 1977).
2. National Science Board, *Science at the Crossroads: A Report from the Research Committee* (NSB 161, Government Printing Office, Washington, D.C., 1976).

Mr. FOUNTAIN. On June 15, 1979, Mr. Stugart, the General Accounting Office issued a report to Congress entitled "Grant Auditing, a Maze of Inconsistency, Gaps, and Duplication that Needs Overhauling." I assume you are familiar with that.

Mr. STUGART. Yes, sir.

Mr. FOUNTAIN. The report states that Federal grants will total about \$85 billion in 1979. That is a staggering sum. At this hearing we are primarily concerned, however, with grants and contracts audited by HEW in institutions of higher education. Is that report applicable to HEW's auditing activities in educational institutions?

Mr. STUGART. It is to a degree. However, this is one area of auditing wherein the Office of Management and Budget has assigned HEW specific responsibility for all audits of Federal funds going to universities. Therefore, it is the cognizant agency.

One of the emphases of that report is that OMB do more of that and assign cognizance to grantees at the State and local level, so that there are not a half dozen auditors coming in at varying times during the year and conducting audits of just their agencies' small part of the action.

Mr. FOUNTAIN. Are you in a position to state whether or not HEW grant auditing is included in the characterization made by GAO; namely, a maze of inconsistency, gaps, and duplication that needs overhauling?

Mr. STUGART. Mr. Egan might respond to that.

Mr. EGAN. When we looked at that agency, we looked at many Federal agencies where grant auditing was done, HEW being one; HEW, Community Services Administration, Department of Labor, Commerce, Interior, et cetera. They are part of the overall evaluation of that report.

Mr. FOUNTAIN. The HEW Audit Agency is the principal auditing agency for grants and contracts to educational institutions, but many audits of colleges and universities are made by other agencies such as the Defense Contract Audit Agency. Do all Federal audit agencies use a standard audit guide? Are their findings of equal validity?

Mr. STUGART. No, sir, they do not. That was another problem addressed in that particular report. We are concerned that the number of audit guides is proliferating. There are some 50 of which we are aware that are being used for various and sundry grants.

We have undertaken a major effort in our office, along with the Office of Management and Budget, to come up with a single audit guide that Federal agencies, State auditors, or local auditors can use to audit Federal funds flowing to a State or local jurisdiction.

Mr. FOUNTAIN. Do you think it would be possible and practicable to have a single standard audit guide?

Mr. STUGART. We think that is very possible, at least a guide that would be a central document for use in an audit. There may be a need to supplement it with an errata sheet here and there, but we are definitely convinced that is needed.

Mr. FOUNTAIN. How do you account for the fact that some 50 different audit guides are available?

Mr. STUGART. One of the reasons that we are given is that those audit guides are often written to not only meet the requirement of the audit

standards but to meet the needs of agency program people and to cover specific program aspects that the program managers have a desire for. That is one of the reasons.

Mr. FOUNTAIN. Do you know how these Federal audits compare in quality, validity, and consistency with audits at educational institutions made by private accounting firms?

Mr. STUGART. To my knowledge, we have not made that comparison. We recently did a review of the quality assurance of Federal agencies of CPA audits. We had some problems there, but we have not made a comparison of the two.

Mr. FOUNTAIN. In your opinion, are there any practical alternatives to the audit as a means of encouraging and securing the proper use of Federal funds by the universities; that is, that the funds are used for the purposes for which they were awarded?

Mr. STUGART. We think there will always be a need for a certain amount of auditing. You can never eliminate auditing entirely. It is part of the control system used by management to gain accountability. We do not think you can eliminate the need for accountability. We recognize the need for academic freedom and research, but there is also a clamoring by the public of this country for accountability over the Federal dollar.

Mr. WYDLER. Would the gentleman yield?

Mr. FOUNTAIN. Yes.

Mr. WYDLER. The question you have to ask yourself is whether it pays to spend taxpayers' money to conduct audits that are eventually useless other than maybe for the fear factor they may create in the minds of the institution? What you have testified to here is that all the results of the audits tell you is that there is a great deal you do not know. That is what I summarize out of the material.

If you conduct an audit and say you really do not know what happened to 50 percent of the money, I do not think that is worth anything, personally. The question is do you just keep conducting these kinds of audits because you are able to say to people, "We are auditing," when in effect you are not really auditing effectively? What is the use of it?

Mr. STUGART. I agree.

Mr. WYDLER. That is the bottom line to me. It is not just that we are going through the audit procedure and we are going to have twice as many audits this year as we did last year. What difference does it make unless the audits mean something when you conduct them?

Mr. STUGART. I would agree 100 percent, sir. One of the things I pointed out in my statement was that there is a need for improved audits but one of the ways for being able to come up with a better audit is some standard of accountability which an auditor can measure against to make sure that the Federal Government is getting what it contracted or made the grant for.

Mr. FOUNTAIN. I think that is probably what will come out of these hearings. You cannot audit something that is not there. The question is how do we bring about better auditing systems and, thus, accountability within the institutions themselves.

In order to be absolutely clear on the meaning of the last sentence on page 2 of your statement, to whom does your term "research grantees" apply? Is it the university, or the principal investigator?

Mr. STUGART. Under the current organization of university research, it would have to be the principal investigator, but in terms of accounting we feel that the university has a role to play, too, because they are involved. The way the research is conducted is pretty much up to the principal investigator.

Mr. FOUNTAIN. I think our hearings will disclose, based on the information we already have, that in many instances the principal investigator does not have the slightest idea how the funds were spent. The accounting process is carried on by the institution itself.

Mr. STUGART. Yes.

Mr. FOUNTAIN. At page 3 of your prepared statement you say, "There is an equal need for university cognizance and understanding of the Government's role with respect to accountability for public funds." Can we assume or are we to assume from this statement that universities generally do not now recognize and understand the Government's role with respect to accountability for public funds?

Mr. STUGART. I think they have an understanding of the need for accountability, but in the past the track record has been that their primary concern is with conducting research and not with accounting for the Federal dollar. What we are saying is that there is a happy medium that needs to be struck between the Federal agency's need for feedback on how that dollar is spent and the research results.

Mr. FOUNTAIN. During the first hearings in which we examined the manner in which the National Institutes of Health were managing their grants, the head of that agency testified quite frankly, because this was the first time any committee of the Congress had ever exercised oversight of that institution's administrative policies and practices. In effect, he said, "I don't think it matters how we handle the money after we have selected the grantees. After we award the money, it is up to the grantees to do the job."

He is right; it is up to them to do the job. However, he later came back at another hearing and, after he had seen the revelations of the hearings, admitted that his statement was in error, that NIH does have a continuous management responsibility and the Congress expects them to carry it out.

In that connection, NIH was using a superficial auditing system at that time which was next to useless.

On page 3 of your prepared statement you say, "Mutual cooperation between the universities and Federal agencies is a must if acceptable solutions to accountability are to be found."

What is the existing situation today on such mutual cooperation, if you know?

Mr. STUGART. The issuance of revised OMB Circular A-21 is an outgrowth of that cooperative effort. The university community as well as HEW, GAO, and OMB was involved. There was cooperation in coming up with those revised standards.

Now the real question is whether they will be applied as intended. I think that will go a long way toward solving the problem.

Mr. FOUNTAIN. You discussed briefly the Office of Management and Budget's revised Circular A-21 entitled Cost Principles for Educational Institutions which you note "merely establishes the principles for determining costs applicable to grants, contracts, and other agreements with educational institutions."

As I listened to you and followed your remarks in your prepared statement, I got the impression that the earlier versions of Circular A-21 have failed to bring about an acceptable solution to the university accountability problem. Is that correct?

Mr. STUGART. That is our feeling. They were not specific enough to give the kind of guidance to universities that we felt was needed.

Mr. FOUNTAIN. Would you identify the changes in the Circular A-21 revision that are expected to remedy the past inadequacies with this statement of cost principles. For example, is there something in A-21 that will result in more, or better, documentation to support costs charged to grants?

Mr. STUGART. One of the areas that Federal agencies and the university research community have been at odds on is how to account for personnel costs, the principal investigator's salary costs, and which costs should be charged to the Federal grant and which costs should be charged to the university. That has been a continuing problem.

They have used two different bases. One, prior to the revision of A-21, was the expended effort basis which really, from what we could tell in HEW's past audits of personnel costs, was merely a reporting that coincided with budget estimates for that particular research.

The new standard calls for monitored workload reporting. That requires a statement before the fact accounting for 100 percent of the principal investigator's time, and then any deviation from those estimates are to be reported back to the sponsoring agency. We think this will help.

Mr. FOUNTAIN. To emphasize that point, it appears from your statement, and from GAO's draft report on HEW auditing of educational institutions, that the biggest problem is the lack of adequate documentation of salary and wage expenditures.

For example, you state on page 7 that in a review of \$111 million of Federal grants and contracts money expended by one university, the university could not adequately support personal service costs of \$53.7 million. That is almost half of the total amount expended!

How can this situation be remedied?

Mr. STUGART. We think if monitored workload reporting is implemented it should help. There again we feel it cannot be implemented in the breach; that is, go back to the old system of reporting costs in accordance with the pro forma statement that comes in. Any deviations from the estimates must be reported. We think they can account for those personnel costs without hindering freedom of research.

Dr. GOLDBERG. Under the revised Circular A-21, isn't the implementation by educational institutions of the monitored workload system optional?

Mr. STUGART. Yes; this was one of the problems GAO had with it when we issued our 1978 report, but we have taken a position that we will look at it and see how it is implemented.

Dr. GOLDBERG. Do you have any information on how many institutions are electing to use that system of documentation?

Mr. STUGART. No, sir, I do not. We can try to obtain that.

[GAO reported that it was unable to obtain this information.]

Dr. GOLDBERG. It is your position, then, that if this type of workload documentation were widely adopted, it would go a long way toward resolving the problem. With respect to that system, you said any devi-

ations after the fact had to be reported. Doesn't the circular say any "significant" deviations?

Mr. STUGART. Yes; I should correct the record on that. It does say "significant," so small amounts of variance would not be reported.

Dr. GOLDBERG. Would you distinguish between a significant and an insignificant change?

Mr. STUGART. That is a problem. In the circular there is no standard given of which I am aware.

Dr. GOLDBERG. It is simply a statement of principle.

Mr. STUGART. Yes, that is right. As I said in my statement, it is a statement of principle. The real final chapter will be written in the implementation.

Dr. GOLDBERG. Are we any farther ahead, in reality, with a principle that says significant changes must be reported, if none of us really knows what a significant change is at this point?

Mr. STUGART. I think we could improve upon that; yes. As an office we have taken the position that we would be willing to wait and see how it is implemented. We discussed our concern, of course, during the revisions.

Mr. FOUNTAIN. I could not help but feel as you were speaking that even if you discover in advance a defect in the circular, or an ambiguity that may well be interpreted differently and have differing results which are indicative of lack of accountability, you will wait for its implementation before seeking change. Why shouldn't the circular be amended now?

Mr. STUGART. I think in the discussion—and I was not party to the actual discussion on the revision—there was a need to come up with a compromise with which everyone could live.

Mr. FOUNTAIN. They have not been able to do that as yet.

Mr. STUGART. They have not been able to go beyond the standard that says significant deviations will be reported.

Mr. FOUNTAIN. You state on page 2 of your statement,

This pressure for financial accountability applies to all programs of the Government, and colleges and universities are not any different than any other institutions which receive public funds—public money must be accounted for.

I make that statement as a preface to this question: Will you define for us "financial accountability" as you use the term? What are the elements of financial accountability?

Mr. STUGART. As far as I am concerned, I have to break it into two points. From an accountant's standpoint, accountability is a question of how well those funds are spent and documented in terms of the dollars made available, final expenditure reporting on those dollars, fiscal accountability, and that type of thing. The other side of the coin is the research product itself. We are not addressing that in A-21 at all.

Mr. FOUNTAIN. In other words, it is a simple, elementary process, is it not, that requires some kind of documentation to show where the funds received from the Government went?

Mr. STUGART. That is right. Purchase orders for supplies, travel orders, a voucher for travel under the grant, and those kinds of things should be available.

Mr. FOUNTAIN. What you have been telling us this morning is that you have not been able to discover that in many institutions.

Mr. STUGART. In many cases that is correct.

MR. FOUNTAIN. Our concerns are with the proper use of Federal funds, but I think the Government is not the only source of research funds for colleges and universities. Funds are also available from private sources. An example would be grants from the American Cancer Society for research related to cancer.

Do you know whether, in the main, private funding agencies demand accountability for the funds they provide to educational institutions in the same manner that Government does?

MR. STUGART. I do not really have a feel for that. I have with me this morning Matt Solomon who is Assistant Director in charge of our work at NIH. They have been doing quite a bit of work in looking at the accountability of NIH funds. They have some work underway now. He might be able to respond.

MR. FOUNTAIN. Mr. Solomon, did you hear that question?

MR. SOLOMON. Yes, sir, I did.

MR. FOUNTAIN. Could you answer it for us?

MR. SOLOMON. I cannot answer completely, sir, but I can mention that we have been doing some work in comparing with regard to indirect costs what the effect is with Government grants and also grants received from others such as the American Cancer Society. They do not account for their funds nor do they have the same requirements to account for their funds as the Federal Government now requires. However, I cannot speak specifically as to what extent they do require accountability. It is not as extensive as what is required by the Federal Government.

MR. FOUNTAIN. I can understand that. I think there is a different degree of responsibility. The American people do not know very much about how their contributions are spent by the various private agencies such as the American Cancer Society and others. I never see a public documentation of how those funds are spent. I think it is expected that they will be spent generally for the purposes for which they are intended.

However, here grantees are spending money which belongs to all Americans, who expect those in authority to see that it is spent effectively, prudently, and honestly. Would you agree with that?

MR. STUGART. I would agree 100 percent. When people make contributions to charities they really do not ask for an accounting, but the taxpayer is asking us for an accounting of how their dollar is spent and with a louder voice lately than it has been.

MR. FOUNTAIN. You state also on page 2 that, "Colleges and universities are not any different than any other institutions which receive public funds—public money must be accounted for."

Then you go on to say that because of emphasis on individual autonomy in university research, perhaps universities are different in an accountability sense. I think you touched upon that. You said, "We recognize that precise, uniformly categorized, accounting systems may not be appropriate for university research."

That prompts me to ask: What is the minimum amount of financial accountability which the Federal Government can accept from colleges and universities, in view of this emphasis on individual autonomy, and still provide adequate assurance that public funds have been properly spent?

Mr. STUGART. I do not think the Federal Government should demand the establishment of separate and elaborate accounting systems to account for the Federal dollar, but I do think that Federal agencies should be able to expect the university to tell them how that dollar was spent, at least a separate accounting for it. If not a separate accounting system, then there should be a separate accounting of the Federal grant dollar.

I would like to read from a letter that the Comptroller General sent to Mr. Richard Sessions, who is administrative director of the Center for Ulcer Research and Education in Los Angeles, on May 14. The thing that prompted this letter was a paper that Mr. Sessions submitted taking issue with the need for accountability. The Comptroller General said:

You rightfully point out that the small number of cases we reviewed could not be considered a statistical sample.

This is going back to the 1978 report.

We did not, however, attempt to review a sufficient number of cases to develop a projectable sample, rather, we were building on the number of reports that have been issued over the years by HEW and other Government agencies. We did, in our opinion, do enough work to satisfy ourselves that the problems reported by these agencies in the past were serious, were worthy of congressional consideration, and required corrective measures. * * *

We believe it is just as much in the interests of grantee institutions to have good accountability controls over grant funds as it is in the interests of the U.S. Government. It really serves no useful purpose for academia to reiterate that peer group reviews of the quality of the research accomplished should be sufficient to guarantee the "accountability" for Federal funds. We wholeheartedly believe that there must be financial as well as professional and quality accountability. * * *

If I may, I would like to submit that letter for the record.

Mr. FOUNTAIN. Without objection, it will be made a part of the record.

[The letter referred to follows:]



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

MAY 14 1979

Mr. Richard A. Sessions
Administrative Director
Center for Ulcer Research and
Education
Los Angeles, California 90073

Dear Mr. Sessions:

Thank you for your letter of April 11, 1979, forwarding your paper entitled "Federally Sponsored Research at Educational Institutions - A Need for Improved Accountability." As you requested, I would like to offer the following comments on your paper.

Your initial criticism of our report relates to our study methodology. You rightfully point out that the small number of cases we reviewed could not be considered a statistical sample. We did not, however, attempt to review a sufficient number of cases to develop a projectable sample, rather we were building on the number of reports that have been issued over the years by HEW and other Government agencies. We did, in our opinion, do enough work to satisfy ourselves that the problems reported by these agencies in the past were serious, were worthy of congressional consideration, and required corrective measures.

My principal problem with your paper is that it does not seriously address the real need to foster public trust and confidence in the manner by which the Government accounts for and administers huge sums of grant monies. You dwell on the cost of implementing additional accounting controls, but you fail to recognize the serious costs in terms of credibility and trust of not having good controls. We believe it is just as much in the interests of grantee institutions to have good accountability controls over grant funds as it is in the interests of the United States Government. It really serves no useful purpose for academia to reiterate that peer group reviews of the quality of the research accomplished should be sufficient to guarantee the "accountability" for Federal funds. We wholeheartedly believe that there must be financial as well as professional and quality accountability. I discussed this distinction in the kinds of accountability for university research in a speech which I gave on April 10, 1979 (copy enclosed).

I certainly agree with you that the problem is to find an acceptable and cost effective method of public accounting for grant funds.

We in GAO are just as interested as you are in keeping the cost of accounting, administration, and paper work to a minimum. With this in mind, we would be happy to work with you, with the accounting profession, and with other interested parties in attempting to develop a reasonable and effective method for satisfying all of our objectives.

As you may know, we have followed the work of the National Commission on Research since its establishment and have kept in touch with members of the Committee on Accountability. Mr. Oymund Fundingsland of our Program Analysis Division has been our liaison to this group. If you would like to discuss this matter further, please contact him.

Sincerely yours,

(SIGNED) ELMER F. HARRIS

Comptroller General
of the United States

Enclosure

bc: Mr. Stolarow (PSAD), w/o enclosure
Mr. Havens (PAD)(2), w/o enclosure
Mr. Myers (PAD), w/o enclosure
Mr. Dugan (PAD), w/o enclosure
Mr. Fundingsland (PAD), w/o enclosure

Mr. FOUNTAIN. You also say on page 2—and page 2 seems to contain a lot of information prompting questions: “The key issue * * * is how to assure appropriate stewardship for Federal funds spent in support of research without imposing excessive controls, direction, and administrative burden on research grantees.”

Now I know the answer to the question I am going to ask you with respect to some agencies like NIH because we have had contact with them in the past, but I would like your opinion as to whether or not Government regulations in the past have imposed excessive controls, directions, and administrative burdens on research grantees.

Mr. STUGART. I think the answer to that depends to some extent on one's perception. If you were talking to a researcher, he would probably tell you yes. I do not happen to share that perception.

Mr. FOUNTAIN. Mr. Stugart, I have one or two questions concerning GAO's August 18, 1978 report entitled “Federally Sponsored Research at Educational Institutions, A Need for Improved Accountability.” I am sure you are familiar with that.

Does GAO stand by this report or have any developments since its issuance on August 18, 1978, made this report outdated? I have heard a rumor that GAO is not satisfied with that report.

Mr. STUGART. I think the letter from which I just quoted pretty well spells out the Comptroller General's position on that report. We do not think it is outdated. We stand behind it. We recognize that our sample was small, but that sample was supplemented by the work of HEW and other organizations. We stand behind it.

Mr. FOUNTAIN. I realize you had already substantially answered that question, but I wanted to have the question preceding the answer so that the record would be clear as to what we are talking about.

The report also has, at page 26, GAO's conclusions and recommendations. It is stated, “Widespread misuse of Federal research dollars has been reported by HEW and the news media. Our review has confirmed that such misuse is occurring.”

By use of the words “misuse is occurring” does GAO mean that the misuse is widespread? If so, how widespread?

Mr. STUGART. I think I would defer to Mr. Melby on that question. He was the principal auditor on this particular report. He knows the work much better than I do.

Mr. MELBY. Yes; even though our scope was small, we felt that the types of misuse that were being reported by HEW auditors was similar to what we had uncovered even in our limited scope of review of only 25 grants at 6 major institutions. The types of findings were similar. In some cases the dollar amounts were admittedly insignificant. It depends on which side of the fence you are on. However, we feel what we found in our limited audit versus what the others found lent credibility that it was widespread.

Mr. FOUNTAIN. The report also states that these problems, which include the misuse of research moneys by institutions, “can be minimized by the development of more definitive cost principles for both the institution and the Federal auditors, * * * more oversight by the grantor agencies with respect to how research moneys are being spent, and increased Federal audit effort.”

Let us examine that last part—increasing the Federal audit effort. Ordinarily, I would look upon that as a reasonable statement. How-

ever, hasn't the Government during the last 20 years been steadily increasing the level of effort in auditing at educational institutions?

Mr. STUGART. Have we done that?

Mr. EGAN. That is a good question. HEW's internal audit staff has approximately 1,000 auditors at this time. They spent about 165 to 200 man-years of effort at universities the last couple years. I do not think that is too far off the record in terms of the amount of money being spent.

Mr. FOUNTAIN. Are they just socializing there or are they getting some results?

Mr. EGAN. No; I think they get results. They are working very hard to get some, especially the direct cost work. The problem associated with it which I think is very frustrating from the auditor's standpoint is to go in and spend time auditing and then find the accounting systems are in such a disarray. They make a recommendation that the universities correct that situation, and they come back 3 years later and find the same situation existing. It only stands to reason that if some sanctions are not imposed upon the universities, they will continue to disregard the auditors' findings.

Mr. FOUNTAIN. But you are saying that there has been a steady increase in the level of effort in auditing educational institutions. Whether or not that is adequate, of course, is another question.

Mr. EGAN. I think that is a fair statement.

Mr. FOUNTAIN. Has that been effective, in your opinion, in minimizing the misuse of Government funds? I think you probably have already answered that, but will you answer it in direct response to the question?

Mr. EGAN. It is hard to measure the overall effectiveness of the HEW internal audit. I think the work that they do in a lot of cases is very effective. The situations that they highlight in terms of indirect cost problems or direct cost problems are ones which the universities should be correcting.

Mr. FOUNTAIN. With respect to more oversight by the grantor agencies recommended in your report, it is my understanding that there is a trend toward lessening Federal monitoring and placing a greater emphasis on encouraging the universities to improve their accounting systems. Is my understanding correct?

Mr. STUGART. I do not have a real good feel for it. As George Egan indicated, HEW's level of effort has been relatively constant over the past few years, but there has been a significant increase in the Federal dollar flowing out. You mentioned \$85 billion a year.

Mr. MELBY. I think the program people do not really play a real active role in this. Perhaps there should be more grantor agency oversight. At least maybe an NIH representative every so often could go out to the university and look at the administration of NIH grants.

Also, in this report we felt that universities themselves through their internal audit mechanisms could play a role to assure that these funds were properly accounted for.

Mr. FOUNTAIN. Have you detected in your studies, investigations, and auditing, any feeling which we have seen displayed on the part of some heads of agencies and those working under them, an attitude such as, "Well, these funds are for the benefit of this institution and

they are going there anyway. It is not so important that we have the kind of system which enables us to know precisely how they are spending those funds; it is going for a public purpose anyway." Do you detect any of that kind of attitude?

Mr. STUGART. I do not get a sense of that attitude, but I do get a sense that the top priority of agency program people is getting the funds out as opposed to accounting for them after the fact.

Mr. FOUNTAIN. I think that seems to be the attitude with respect to a lot of agencies. We have been taking some testimony on the student loan program which we have not completed yet. We found that getting the money out was awfully important, but no effort was made to do any collecting until they finally discovered that hundreds of millions of dollars had been unpaid and that many of the people who had received the loans or gotten the grants had had good jobs and been drawing substantial salaries for a number of years but made no repayment at all for those loans. Therefore, it seems to me that—

Mr. WYDLER. Some of them are working for HEW.

Mr. FOUNTAIN. Yes; some of them are probably working for HEW. Maybe the gentleman has in mind some that I do not know about. It is so widespread that I am pretty sure that all of the agencies may have some.

GAO's report on the HEW Audit Agency performance, which you testified was released just this morning, revealed a number of audit inadequacies as we examined the draft which you had made available to us. In it GAO says, "One, HEW's audits were not timely. Two, because of inadequate university records the auditors in some cases could not render an opinion on the allowability of costs charged to Federal grants and contracts and three, in some instances audits did not come up to the quality expected because the auditors lacked adequate scope of coverage, sufficiency of evidence, completeness of reporting, and supervision of staff."

Among the HEW audits which GAO reviewed, did you encounter any in which the HEW auditors were, in your opinion, overly demanding and unreasonable in requests made to the university, too strict in interpreting the regulations, or unjustified in reporting the results of the audits as they did?

Mr. STUGART. I am not aware of any. Mr. Egan may be.

Mr. EGAN. We are not aware of any, Mr. Chairman.

Mr. FOUNTAIN. Mr. Melby, are you aware of any?

Mr. MELBY. No.

Mr. FOUNTAIN. Can we assume then from your testimony, however, that in some cases auditors were too lenient during the audit, asking for too little documentation of costs and not digging enough in order to get evidence from which to determine whether costs charged to Federal grants and contracts are proper?

Mr. STUGART. I think part of that problem is that it would take an inordinate amount of audit resources. You would almost have to reconstruct the accounting system to come up with an opinion on some of those expenditures.

Mr. FOUNTAIN. There again, because of the lack of accountability at the institution, no documentation.

Mr. STUGART. That is correct.

Mr. FOUNTAIN. What steps should an auditor take to establish the validity of recorded costs, or is he dependent upon the guidelines that are set forth by the agencies?

Mr. STUGART. Of course, a lot of professional judgment goes into how much testing an auditor should do. There are testing procedures that he should follow. Visual examination of records, documentation, are the kind of approach that should be taken.

Mr. FOUNTAIN. Is that regularly done as a standard procedure in every HEW audit of direct costs?

Mr. STUGART. That is normally the attempt. Most auditors would try to go to the documentation behind a transaction and satisfy themselves that it was a valid transaction. However, if the records are not there, that is where the auditor gets stymied.

Mr. FOUNTAIN. I guess what Mr. Wydler was referring to a few minutes ago is that you just keep on auditing and auditing, but you are not getting anywhere. There is no need to spend the time auditing if you do not find some way of getting something to audit. Is that right?

Mr. STUGART. That is correct. Of course, the mere presence of an auditor sometimes—

Mr. FOUNTAIN. It a psychological effect, like the highway patrolman driving up and down.

Mr. STUGART. That is right.

Mr. FOUNTAIN. On page 5 of your statement, in speaking of GAO's evaluation of HEW audits at 20 institutions, you say, "Although HEW devotes a substantial portion of its auditing resources to auditing Federal funds administered by institutions of higher education, we concluded that some of the audits are not as effective as they could be."

In an appearance before a Senate Appropriations subcommittee, Mr. Scantlebury, the Director of your Division, commented on the same evaluation. In his prepared statement he said, "We have, however, reached the tentative conclusion that HEW's audits of Federal grants and contracts administered by colleges and universities are not as effective as they could be * * *" However, he then adds, "and cannot be relied upon to provide reasonable assurance that Federal funds are being spent for their intended purpose."

Do you agree with Mr. Scantlebury that HEW audits cannot be relied upon to provide reasonable assurance that Federal funds are being spent for their intended purpose?

Mr. STUGART. I have a strong feeling that in a case where you have \$111 million worth of grant funds and you can only attest to the validity of 60 percent of them, there is not much basis for relying on the overall audit. I think that is what he was saying.

Mr. FOUNTAIN. I think the answer to my next question is probably obvious, but we need to have it on the record from you.

Can HEW, or any other auditor agency for that matter, be expected to determine how Federal funds were spent or used if an institution has inadequate or inaccurate records from which such determination must be made?

Mr. STUGART. Not without reconstituting the records themselves.

Mr. FOUNTAIN. That would require a considerable amount of time and probably an excessive number of auditors.

Mr. STUGART. That is right.

Mr. FOUNTAIN. In the audits reviewed by the subcommittee staff, between 150 and 200, many of HEW's auditors said that they could not determine the accuracy of the university claims that grant funds were expended for the purposes for which they were intended because of a lack of adequate records. If money is misused, this could occur because of human error or by design.

Basing your opinion on your knowledge of accounting and business practices, Mr. Stugart, when errors are responsible for the misuse of funds are those errors usually detectable from examining records?

Mr. STUGART. Yes, they are. You can normally identify the problem areas and come up with a pretty firm estimate of how much money has been misappropriated or misspent.

Mr. FOUNTAIN. When there are no records then that sort of thing is possible—that is, misappropriation and misspending.

Mr. STUGART. Yes.

Mr. FOUNTAIN. When misuse is due to design, is misuse more likely or less likely to be detected by records than in the case of error? Where there is deliberate misuse, would you expect records to support accountability transactions?

Mr. STUGART. If there is deliberate misuse, there would probably be some attempt to doctor the records. Of course, the auditor, as part of his standard procedure, would look at the internal control system of the organization over those funds, including internal audit, their separation of duties, and other functions that would enable somebody to embezzle or misappropriate. Therefore, if the control system was weak, he would probably extend his procedures to get at that question.

Mr. FOUNTAIN. Let me ask you this question: Isn't the GAO being somewhat harsh—and I am not taking a position one way or the other but simply asking this question—in criticizing HEW for ineffective audits when the ineffectiveness is due to the failure of educational institutions to keep adequate records to support claimed transactions or charges?

Mr. STUGART. To some degree probably.

Mr. FOUNTAIN. Are you referring to the fact that HEW has not mandated a system of documentation?

Mr. STUGART. That responsibility flows jointly to OMB and HEW. They could have been more forceful in demanding accountability.

Mr. FOUNTAIN. I want to yield to Mr. Wydler now.

However, first I would like to make this statement: I think all of us are very much concerned about, and yet we do not want to overreact to, the amount of unnecessary redtape and to some extent harassment by bureaucracies of both private enterprise and public institutions. We would like to see a minimum amount of redtape. We realize that as stewards of public funds you have to do a reasonable amount of auditing. We certainly would like to see done what is necessary and essential to determine that funds are honestly and properly spent for the purposes for which they are intended.

At the same time I do not think we ought to overreact and become unnecessarily burdensome in the establishing of rules and regulations.

We all know there are too many regulations. That is why I constantly, along with others, including Mr. Wydler, I am sure, vote to call upon the agencies to submit regulations to the Congress for an examination before they implement them so that we can get an idea of whether or not there is too much of this.

However, I am afraid that in some areas of this administration, perhaps because of campaign commitments and so forth about big government and too many regulations, there is a feeling that we have been requiring too much, that it is no longer necessary, and that we will just stop most of it as long as they state they are spending the money honestly and for the intended purposes. That would not be a wise approach, would it?

Mr. STUGART. No, it would not. I do not think your constituents would allow you to do that.

Mr. FOUNTAIN. I am sure mine wouldn't.

Mr. Wydler?

Mr. WYDLER. Thank you, Mr. Chairman.

I am very much disturbed by the questions that are being raised here this morning. Initially you come down on the side that we should have very strict auditing and it is the taxpayers' dollars. I have used those expressions myself from time to time. However, I just wonder what the value of it all might be.

For example, philosophically you could ask yourself where the Government gets the greatest benefit. You might have a case where the university took the money you gave it and accounted for each and every dollar meticulously and produced absolutely nothing of value as a result of their effort and the expenditure of the Federal money. However, you might have another case where they did it rather haphazardly and loosely but they really gave the Government some good results.

You would have to ask where the Government and the taxpayers got full value. In one case you could account for everything but it really was not worth anything. In the other case, although it was rather loosely done, it really produced some kind of valuable result for the people and the Government.

That is a philosophical question. It does not help you with the answer. However, I am troubled with the implications of where we are going on this particular matter.

For example, in your judgment would it be a wise policy for the Government to require that every Federal grant given to any university be audited, each and every one in the United States of America?

Mr. STUGART. No. Auditing, of course, is not founded on that basis. You cannot do a 100-percent audit.

Mr. WYDLER. Well, you could do it.

Mr. STUGART. You could do it if you wanted to put the resources in it, but it probably would not be cost-effective.

Mr. WYDLER. Therefore, we are going to start with the assumption that we are going to make a compromise on what we are going to do. That is the basic assumption that we make in the whole auditing question with which we are dealing here. The question is where we are going to draw the line in a reasonable way to have a reasonably good system of auditing.

The worst possible thing I think you could do would be to say to each institution, "We're going to audit you every second of third year." I cannot think of anything that would be worse than that from my own point of view. There you give them a year off each and every time. I think it should be done on a haphazard basis. It would be much more effective.

The most effective thing you have going for you here is the fear factor, the fact that, "God Almighty, the auditors are coming. They just called us up and they are going to be in next week." After that happens, you have the institution's attention from that point on, I am sure.

It is just like the bankers. Even bankers I know go out of their minds when they hear that the Federal Reserve men are coming down the next week to start an audit of the banking records.

Therefore, I think that is the most valuable tool you have—the idea of coming on a very irregular, haphazard basis and looking over their books and records.

The only other question, it seems to me, is how much of that do you have to do to really make it effective. Obviously you cannot let a university go for 10 years without anything happening. Otherwise, you are going to get into the state of mind it is never going to happen. Therefore, maybe you should have experience on drawing those kinds of schedules up.

The only other thing would be what kind of records should we require the universities to maintain. I ask you again the same general question: Should we require all universities that get Federal money to keep their records in a standardized form? I suppose that is what the real question is we are asking ourselves.

Mr. STUGART. I really do not think we should mandate an accounting system by the Federal Government to the university. Normally when a research application comes in it has a budget attached to it. I think the university should be able to account for the expenditures under the grant back to the approved budget, unless it has been modified by the grantor agency.

Mr. WYDLER. That is a good standard to set except it lends itself to almost any interpretation. I am sure the university, every one of them practically, claims that is what their records do. Then when you get into them, you find you really cannot follow the funds. The only cure for that, it seems to me, is to require each and every one to have some sort of a standard system that will give you that kind of accountability. The question then is do we want to go that far.

Mr. STUGART. Analogous to this is the granting of funds to State and local governments. They are not required to set up separate bank accounts for Federal funds but they are required to account for those Federal dollars separate and apart from local tax revenues and that sort of income.

As I said in my statement, I do not think the universities are that much different from other entities receiving Federal dollars.

Mr. FOUNTAIN. Would the gentleman yield?

Mr. WYDLER. Yes, I will yield, except I would just say I think they are quite different, frankly. The fact is that the local government can afford, to the extent at least that they can get reelected, to set up any kind of an accounting system and charge it to the taxpayers. That

is how they get their money. A university cannot do that. It has to try to run some sort of a budget that has a limit to it. That is the difference between those two cases, in my judgment.

I will yield to the chairman.

Mr. FOUNTAIN. My guess is, though, that if locally elected public officials are found to be doing what you are talking about, then they will not stay in office very long.

I was going to mention that in the general revenue-sharing program, which you and I have been interested in and have helped to become law, we have eliminated as many restrictions as we can so that locally elected and State people can exercise their own discretion. However, we still have accountability so that they have to tell us how those funds were spent. We are requiring that of our elected public officials. The question is—do we place more confidence in people that you cannot kick out of office and not require at least as high a degree of responsibility?

Mr. WYDLER. Finally, the last thing that I think about in relation to trying to solve the question of how far you go with your auditing and how far it is useful to go with your auditing, is the nature of the grant itself. That comes back to the old question of categorical versus a block grant approach as to how these grants are given to universities and what we really expect them to do with them after the money gets into university funds.

I don't know whether there is anything you can recommend along those lines. Can we take a certain group of grants and say "these grants the university can treat as general revenue-sharing funds" and "these are some very job-specific kinds of grants where we require them to use them exclusively in one operation and for one specific purpose"? I read some of the background here and I get the impression universities think it is a little like their money once it is into their treasury, and really they are doing a good job with it and that is all the Government should be interested in and not as to the specifics on deciding that this man's effort was helpful to the project or not. If they had to make a judgment they made a judgment that it was well spent and they are the ones who know most about it.

Can you give us any light in that quagmire?

Mr. STUGART. That is always a possibility, going into the block grant approach. I understand that NIH has had a program for 15 or 18 years—the number of years escapes me—in handling grants in just that fashion in one of its programs. We have that under review now.

Mr. Solomon is running that particular audit. I do not think we are far enough along in it to draw any conclusions but we do intend to report back to Congress regarding the results of that effort.

Mr. WYDLER. Thank you, Mr. Chairman.

Mr. FOUNTAIN. Thank you very much, gentlemen, for being with us this morning and giving us the benefit of what you have been able to find.

Mr. WYDLER. Let me congratulate the witnesses as well as the agency for which they work.

Mr. STUGART. Thank you very much.

Mr. FOUNTAIN. Our next witness will be Dr. Phin Cohen, who has been associated with Harvard University and its School of Public Health, doing research in the biomedical field.

In addition, he has done research in biochemistry in Holland for 3 years, on leave of absence from Harvard. He will relate to us his experiences as a principal investigator with NIH grants while at the Harvard School of Public Health.

Dr. Cohen, we appreciate your presence here this morning. You may proceed with your testimony. Take such time as you need to assemble your charts and the material you will use in the process of your presentation.

**STATEMENT OF DR. PHIN COHEN, SCIENTIST AND PHYSICIAN;
ACCOMPANIED BY ALBERT F. CULLEN, JR., ATTORNEY**

Dr. COHEN. Mr. Chairman, members of the subcommittee; seated at my side is my attorney, Albert F. Cullen, Jr., of Boston. My name is Phin Cohen. I am a scientist and physician. I have been married for 27 years and have five children. I have a bachelor's degree from Duke University and M.D. degree from the University of Maryland.

After internship at Duke Hospital and 2 years service in the Air Force as a flight surgeon, I had a 1-year residency at Boston City Hospital with a Harvard appointment, after which I spent 18 of the next 21 years doing research in the Harvard medical area, 10 years before and 8 years after a 3-year leave of absence to do research in biochemistry in Holland. During the entire period 1955-76 I held a Harvard appointment.

I am a member of four national research societies: The American Society of Biological Chemists, the American Society for Clinical Investigation, the American Society of Hematology, and the American Federation for Clinical Research. I am also board certified in internal medicine and a fellow of the American College of Physicians.

In my career I have been a technician, research fellow, project leader for another principal investigator, and principal investigator on various projects. I have done research in three environments: In a hospital, in a basic science laboratory which was removed from health science facilities, and in a laboratory in the department of nutrition of the Harvard School of Public Health. My research has concentrated on the physiology and biochemistry of human platelets and the use of fluoride to treat demineralizing diseases of the skeleton.

The personal experiences which I shall describe began when I won three Federal grants via the peer review system and, as principal investigator on those grants, assumed responsibility for a public trust.

My exposure to grants mismanagement began when, at the end of the first year on one of the NIH grants I had been awarded, an administrative assistant to the chairman of the department of nutrition of the Harvard School of Public Health gave me a blank report of expenditures to sign. I informed her that I did not wish to sign a blank check and wished to see a list of expenditures before signing the ROE. I was told that such information would not be provided to me, or to any other principal investigators in the department.

Not knowing what to do, I took the matter to the assistant dean for finances at the school of public health. He told me that the problem was not new and that he could not resolve it for me.

At the end of subsequent years of my NIH grants more blank ROE's came along. I continued to ask for information regarding details of

expenditures from my NIH funds. Repeatedly, these requests were denied.

Mr. FOUNTAIN. Did you sign those blank reports?

Dr. COHEN. I did.

Mr. FOUNTAIN. All right.

Dr. COHEN. I returned to the assistant dean for finances several times and each time was told that he could not resolve the problem for me. He also informed me that if I continued to ask questions about the management of my grants it would be unhealthy for my career.

Finally, my concern rose to such a level that I demanded that lists of expenditures be provided to me. When the information was turned over, in the form of computer printouts of expenditures, I saw that Federal grants had been grossly misused by the department of nutrition. I saw that persons who had done no work for my projects had been paid with my NIH grant funds, contrary to NIH rules and regulations. Some of those persons were known to me and worked for other laboratories. Others were not known to me. The magnitude and pathways of misuse told me that the mismanagement certainly went beyond my grants. I requested the university to audit grants awarded to me and other principal investigators in the department of nutrition. This was not done.

Prior to demanding the lists of expenditures and requesting an audit of the department of nutrition, I had been recommended for promotion with a 5-year term. This was under consideration, but when I questioned grants management practices, my faculty reappointment which had been committed in writing was withdrawn.

Because of Harvard's failure to act, I subsequently reported the matter to the National Institutes of Health in December 1975. In January, February, and March 1976 the Division of Management Survey and Review, the auditing group of the National Institutes of Health, did an audit which showed that:

One, persons who had done no work for my grants had been paid from my grants. Some of those persons were known to me and worked for other laboratories. Others were not known to me.

Two, other employees were charged to my grants in excess of the effort they spent on the projects.

Three, the procedures used to allocate supply costs were inadequate.

Four, principal investigators besides me were also not getting adequate financial information concerning their projects.

Five, time and effort reports and salary certifications had not been signed by persons having firsthand knowledge of where the employees shown on those reports were actually working.

Six, the findings were not limited to my grants. Two other grants in the department of nutrition were also found to have been mismanaged.

Seven, the findings were not limited to the department of nutrition. Similar evidence for grants mismanagement was found in two other departments of the school of public health.

Eight, persons were paid with research funds to teach courses despite the fact that this is specifically forbidden by Federal regulations. The school of public health knew this was against regulations but did it anyway. This is confirmed in a memorandum dated October 12, 1975, from the assistant dean for finances to Dean Hiatt of the school of

public health, with a copy to Hale Champion, then financial vice president of Harvard:

The teaching programs benefit from . . . diversion of federal funds which redounds to the benefit of School of Public Health financial results. A certain portion of the salaries and fringe benefits of faculty supported by federal research funds is in fact diverted into the teaching programs. This ploy has double dividends. It not only enriches the catalog offerings available to tuition-paying students, that is, unrestricted income, but it also tends to overstate the size of the federal indirect cost pool . . .

Harvard School of Public Health will be unable continuously to tap the till of overallocated research costs. Should federal frank support of teaching stumble and covert support diverted from research faculty dwindle, unrestricted costs for educational programs could suddenly multiply. . . .

Nine, the auditors quantified their findings only in the department of nutrition and included only five grants of the more than 20 grants then active in that department. Moreover, the audit did not quantify all cost categories or all years of those five grants. For my three grants, as best I can determine, approximately 2 years were audited. For the other two grants, approximately 1 year of each was audited. Nevertheless, the auditors found that \$132,000 of those five grants had been misspent.

Ten, Hale Champion, then financial vice president of Harvard, was informed of the auditors' findings and made a decision not to contest the findings. The entire sum of \$132,000 was paid back to the Government.

Eleven, on the basis of these findings the director of the division of management survey and review believed that the mismanagement might be widespread at Harvard and requested in a letter in June 1976 that the DHEW Audit Agency do a general audit of the school of public health and all other schools which receive Federal grants at Harvard.

Mr. FOUNTAIN. So the record will be clear—I think it is reasonably clear—you were quoting from the memorandum to Dean Hiatt beginning with the words "The teaching program benefits from" down through "educational programs could suddenly multiply." Is that right?

Dr. COHEN. Yes, sir.

Mr. FOUNTAIN. Please proceed.

Dr. COHEN. I then looked for evidence of grants mismanagement in other areas at Harvard. I found that:

One, Federal contributions to pension plans were excessive in the amount of \$171,000 for fiscal year 1973.

Two, during fiscal years 1970 through 1975 the university included in its fringe benefit cost rate computation, costs totaling \$3.9 million which should have been excluded.

Three, nonresearch functions were proposed for funding in an indirect cost proposal.

I quote:

Specific information on administrative assignments was provided to us on 351 persons or about 66 percent of the total of 530.

The information provided on the 351 persons indicated that the administrative costs [amounting to \$743,723] proposed were related primarily to committee assignments such as committees on curriculum, admissions, undergraduate students and studies, professors, higher degrees and Ph. D.'s . . . ; also proposed were tutors, house masters and administrative assignments related to continuing education programs and athletics.

Now we return to pick up the thread of the story in April 1977, at which time the DHEW had not acted on the request by the director of the DMSR for a general audit. In April 1977 I brought suit against: President Derek Bok and the Fellows of Harvard College; Howard Hiatt, the dean of the school of public health; and Fredrick Stare, my department chairman. I brought suit for two reasons: For myself and for the public trust. For myself, I sought compensatory restoration of my faculty appointment and scientific footing. For the public trust, I asked for a general audit of Federal grants management at Harvard University. The lawsuit is in progress in Federal court. The general audit of Harvard began in August 1977. This was 15 months after the DMSR had requested that a general audit be done.

The total in Federal funds to be covered by that audit amounts to \$225 million for 3 years—1975, 1976, and 1977. I understand the audit is not completed. Thus far, only the audit of the school of public health has been reported in draft form.

The trend established in the DMSR audit continues. The problem is apparently widespread, as shown by the following quotes from the school of public health audit:

One:

In our test of cost transfers totaling \$1.8 million almost \$700,000 or over 37 percent involved the transfer of salary costs. We found that even though the initial distribution of salary costs were certified, all or a portion of those certified salary costs were later transferred to other Federal projects. We believe that the magnitude of these adjustments provides sufficient data to seriously question the credibility of the payroll distribution system, including the certification process utilized by the School of Public Health.

Accordingly, under such circumstances, we cannot attest to the propriety of about \$15 million charged to Federal grants and contracts during fiscal years 1975, 1976, and 1977.

Two:

The persons certifying were certifying only to the amount charged and no attempt was being made to relate the amount charged to the effort expended on the Federal project.

Three:

The School of Public Health cannot provide reasonable assurance to Federal grant/contract awarding agencies that consultant costs of about \$245,000 charged to Federal projects during fiscal years 1975, 1976, and 1977 were appropriate.

Four:

In 27 cases where payments were made to individuals . . . there was neither a bill for services on file at the university nor was there evidence that the services were performed.

Five:

About 29 percent of costs selected in our sample are unallowable. . . . We estimate that costs of about \$2.1 million were inappropriately charged to Federal projects.

Six:

Numerous transfers were made to reduce project overruns and also to utilize unexpended funds by transferring costs applicable to other projects.

Seven:

There was significant accounting activity involving late charges and cost transfers.

This activity which occurred between the grant period closing dates and the preparation and submission of the report of expenditures resulted in equalization of awarded amounts and total expenditures as finally recorded on the accounting records.

One further quote from this audit is most disturbing to one who lost his job for speaking out:

All interviews were arranged for us by a representative of the university's internal audit department and at each interview we were accompanied by a member of the internal audit department, an individual from the SPH business office or a designated administrative assistant from the various departments within the SPH.

The earlier DMSR audit proceeded under no such handicap. Thus, in between audits a radical change in the ground rules for conduct of the second audit had taken place. The principal investigators already had the chilling example of my termination to remind them of the cost of telling it like it is. But just to make sure that whatever principal investigators chose to say in front of the auditors would also be said in front of a Harvard administrator, and therefore would not be confidential, Harvard pushed for and DHEW acquiesced to a change in the ground rules of an extremely important phase of the audit.

I had enough information to point to serious problems in several areas of grants mismanagement by Harvard. I then wondered in the fall of 1977 whether the problems were confined to Harvard. I then analyzed 100 DHEW audits of institutions spread over the entire country. All of these audits were reported in 1976-77. [Slide shown.]

The first slide shows the variety and frequency of the problems. In nearly two-thirds of the audits, serious problems were detected with payroll records for professional and nonprofessional salaries. In the DMSR audit of my grants the problems in this area were mostly with nonprofessionals. [Slide shown.]

The next slide shows the audit trail for payroll records. Principal investigators prepare the budgets. Then the audit trail descends into a valley from which principal investigators were frequently excluded at the Harvard School of Public Health, and, I think, at many other science schools within universities around the country.

In many of their reports, the auditors wrote that time and effort reports were kept by administrative assistants who did not have firsthand knowledge of where employees actually worked, as was the case in the department of nutrition and other departments at the Harvard School of Public Health.

The reason why principal investigators frequently don't see these two types of documents of the audit trail is that these documents contain information which if known to principal investigators would lead them to seriously question the management of Federal awards by universities.

The lists of expenditures are often generated by computers as printouts at 1- or 2-month intervals. If these documents mirror falsified salary certifications, they will probably also be kept from the principal investigators as was the case in the department of nutrition, and elsewhere in the Harvard School of Public Health.

As we emerge from the valley, there are the ROE's which the DHEW says principal investigators must sign once a year to tuck away the grants. The ROE's have two components as a rule: One, the face sheet which has very little in the way of financial information on it; the other, a sheet with more financial data, but only pertaining to big categories, and lacking in detailed information on who was paid and what was purchased. So, as the audit trail emerges from the valley, the principal investigators may be asked to sign incomplete ROE's, sometimes consisting only of the face sheet, as happened to me

in the department of nutrition of the Harvard School of Public Health.

I would like to stress some aspects of this type of bookkeeping:

One, the manipulation of these documents results in the deliberate, willful, and purposeful subversion of peer review.

Two, the falsification, sequestration, and frequent changing of these documents had better be maintained by skillful as opposed to "sloppy" bookkeeping.

Three, when auditors come around, it is best to pretend that these documents never existed, don't exist now, or can't be found, since the manipulations of these documents are the footprints, what lawyers call the indicia, of fraud.

Four, since virtually all of the information of the audit trail originates at the departmental level and is rarely modified after that, it is obvious that the university finance offices do not oversee departmental grants management the way they're supposed to, and are knowing participants in the fraudulent mismanagement of Federal grants. [Slide shown.]

However, university administrators don't limit their participation to poor oversight. They add some mismanagement of their own. The following is a list of examples from the 100 audits, in addition to those I quoted earlier from the Harvard audits:

One, the accounting office directed in writing that cost overruns be eliminated by journal transfers.

Two, salaries were recovered twice, once each from both direct and indirect costs.

Three, there was excessive Federal contribution to an unemployment compensation fund "so as to create a contingency reserve."

Four, there was improper withholding of social security taxes.

Five, there was overbilling of Federal grants for medical insurance.

Six, the university kept unclaimed checks.

Seven, the university retained student aid money for students who did not matriculate.

In nearly every cost category, many universities do their best to include the uncludable, allocate the unallocable, and retain the unretainable.

[Slide shown.]

Dr. COHEN. Let's return to a previous slide. Supply costs were frequently levied against those awards with the most available money, and not according to which specific project ordered, needed, or received the supplies.

To tidy up all of these manipulations of personnel and supply charges so that Washington thought all was smooth, bookkeepers at Harvard and elsewhere used the mechanism of journal transfers. Journal transfers are the putty of grants mismanagement. They smooth over the cracks which need smoothing, to make sure that the ROE's look neat and proper, and as frequently as possible, come out to a zero balance. Journal transfer activity was frequently very heavy near the time of preparation of the ROE's. Journal transfer activity is assiduously attended to on a large scale, and is very skillfully done. There is nothing sloppy about it.

Thirty percent of the time the auditors found that the universities had no or inadequate written procedures for the management of Fed-

eral grants. In some cases, there were no written procedures whatever, as I discovered at Harvard in 1975, despite the fact that Harvard had been specifically told in an audit of Federal grants in the late 1960's, that a set of written procedures was essential.

On the right are categories not necessarily linked to peer review. There were some disturbing findings in these categories. First class travel was often used excessively, despite DHEW policy, which states that economy class should be used in virtually all circumstances. Consultants often didn't submit vouchers for services rendered, as was the case at Harvard. It is worth constant emphasis that the mismanagement touches nearly every cost category.

We found only a handful of audits where cash flow had been examined. The problems here centered on the use of the letter-of-credit. Let us say that principal investigators at a given university win \$48 million in grants for a 1-year period. On that basis, the Federal Government issues a letter-of-credit, on which monthly drawdowns can be made. There are two ways a given university can misuse the letter-of-credit. One is to draw \$4 million a month—4 times 12 equals \$48 million—in the first part of the month, most of which, in the form of salaries and wages, is disbursed in the latter part of the month.

This gives the university 2 or 3 weeks with money which it can put into short-term investments. Even 2 weeks' interest on \$4 million is not exactly peanuts. But, just imagine short-term investments rolling over, so that the \$2 or \$3 million are constantly earning money for the university while waiting to be disbursed, and if the money isn't doing that for the university, it surely could be doing that for Uncle Sam.

Another variation is to drawdown \$4.1 million, \$100,000 more than is needed, month after month after month, until several million dollars in excessive drawdowns accumulate in the bank, and that kind of money drawing interest for the universities, or not drawing it for Uncle Sam, isn't peanuts, either.

The last bar on the right refers to previous warnings. In nearly 20 of the 100 audits, problems which were found had been found on previous audits. The universities had been notified in writing of the deficiencies, but had not corrected them. In one instance, involving a major research university, three consecutive warnings were issued within a decade. In each instance, the recommended corrective measures were ignored, but the Federal money kept coming.

The next two slides schematically represent to the best of my knowledge what happens at several levels within the university when grants mismanagement occurs.

The second bar on the left, representing direct costs, is made up of multiple small squares, each representing a specific award won by a specific principal investigator. To its left is an indirect cost bar which is 60 percent the height of the direct cost bar. Indirect costs are defined as costs which can't be identified with specific scientific projects but which benefit a group of scientific projects. The top part of the indirect cost bar, a block labeled "other" for nonresearch activities is about ready to topple over into a pool of discretionary money for the university. This leaves fewer indirect costs to send over to the science areas.

The indirect cost bar which used to be this height [see figure] is smaller by the time it gets to the science school.

Lately, the universities have been pushing for "full" indirect cost reimbursement. What is meant by "full" in this context is obscure, since universities have for a long time used some of their indirect cost awards for nonscience functions. What is left of indirect costs after the house takes its cut, so to speak, goes to support overhead costs for science. If not enough money trickles down to the science departments, an artificial "need" for more indirect costs is created.

It's like the story of a husband who drinks up a good part of his paycheck each week and then complains to his boss that he doesn't make enough to feed his family. The boss doesn't know about the drinking, but the wife, of course, does.

In the money chain of indirect costs, the Congress is the boss, the university finance officers are the husbands, and the scientists are the wives. In each case, the wives don't complain because the husbands don't like to be challenged, and besides the boss is generous and will probably give a raise anyway—he always has.

So, the game continues to be played. The university higher-ups supply the rhetoric, Congress supplies the cash, and the scientists worry about what will happen to themselves or science if they speak up.

At this point the direct costs are still intact. However, at the departmental level two phenomena are observed. The direct cost bar is truncated [see figure] to provide for administrative services which the department chairmen perceive that they need and which, in fact, should have been paid for by indirect costs which do not trickle down to the departments. The bar is created de novo by "assessing"—taxing—direct cost awards even though neither the job nor the personnel who are paid by this mechanism appear on the direct cost budgets. These departmental administrative services, whether paid by indirect costs or by "assessing" direct costs, are often duplicative of services paid for elsewhere in the university. A quote from an internal memorandum dated November 11, 1973, to Dean Hiatt of the school of public health illustrates this point:

Each little duchy has its own duplicate set of super-secretary-administrators, bookkeepers, lesser secretaries . . . and a manner of living replete with department kitchens and a sense of homey *gemutlichkeit*.

You might think at this point that the chairman would have taken enough from the direct cost awards, but to show how little peer review is respected at the departmental level, barriers separating many of the direct cost awards are broken down by many chairmen without regard to budgets or projects or peer review. This is pooling, plain and simple. That's why, in the figure, many of the small squares have blended into an open expanse. Overall, there is less money in the direct cost bar than there used to be, and a fair amount of what remains is pooled. In any case, there is less to go around to many of the winners of the peer review competition.

I call this whole process a quest for discretionary money. It begins at the top and cascades through the system. The end result is the conversion of nondiscretionary money into discretionary money at multiple levels in the university. [Slide shown.]

Two points to keep in mind as we go through the next slide are that the mismanagement is the result of extremely skillful bookkeeping at the departmental level, and that there is deliberately sloppy oversight at higher levels. Follow the lines of the money pathway in the figure.

Let's begin at the bottom with the money raisers, the principal investigators. Each small box is a specific grant won by a specific investigator in national competition. Many departments pool variable numbers of these grants. Administrative assistants hired by and responsive to the department chairmen, but ironically often paid by Federal moneys raised by the principal investigators, handle the accounts with consummate skill.

The departments channel their communications through the science schools to the central finance offices. In the reverse direction the central finance offices communicate with the deans and department chairmen but not with principal investigators, as was the case at Harvard when I was there.

I say that communications go "through" the finance offices of the schools because the latter are frequently, with regard to Federal grants, only conduits for the flow of information prepared by the departments. The bookkeeping is departmental in origin. This is most important to keep in mind.

There is a net positive flow of Federal money which has been transformed into discretionary money from various nondiscretionary cost categories—indirect costs, fringe benefits, or whatever—toward the central administrations. To the left and right of this Federal block of money are the other major blocks of money which a research university such as Harvard would have: endowment and tuition.

For the private universities, it is interesting to compare the methods of accounting for these blocks of money. This is important because Federal regulations state that Federal moneys should be managed with the same care and prudence as the private funds of the universities. The endowment is managed by investment advisers who know where every dollar sits. The management is expert, meticulous, and prudent. The discretionary block is audited by a private accounting firm. However, these audits don't usually cover the Federal component. I was told by a Harvard official that Harvard's private auditors do not audit Federal moneys. At this level in the diagram the Federal contribution to the universities' general operational fund is seen as a natural phenomenon, analogous to the contribution of the Mississippi to the Gulf of Mexico.

At many of the research universities the Federal component of the budget exceeds the income from tuition. This was not the case 15 or 20 years ago. At Harvard Federal dollars make up 30 percent of the entire university budget and 70 percent of the budget of the health science schools.

The auditing of Federal moneys is usually left entirely to Federal auditors as it was at Harvard while I was a principal investigator there.

The auditing of the Federal component of university budgets is of three types. The "continuous" audit involves "spot checks," "off and on" by one or two auditors from the regional DHEW office. "Spot checks" means a fraction of all transactions. "Off and on" means several times a year. These audits deal with paper transactions and not directly with people in laboratories and have virtually no impact.

Audits by the Division of Management Survey and Review of the National Institutes of Health are another matter. Many of these audits result from specific complaints from individuals who have observed wrongdoing firsthand. Some of these complaints are anonymous. If the informant identifies himself and keeps his job long enough to be present when the auditors arrive, he can point out the problems in great detail. As a result, these audits usually involve intensive interviewing of laboratory personnel in addition to university officialdom. Sometimes these audits find serious troubles, in which case the head of the division recommends that a "comprehensive" audit be done, as happened in my case at Harvard.

The "comprehensive" audit begins and is conducted seriously. However, its outcome is preordained. I see four characteristics of this type of audit which limit its impact:

One, much of the audit trail isn't produced for the auditors, nor is it demanded by the auditors. Ivy-covered halls are places in which to utter requests, not issue demands. This is totally unlike an IRS audit where a taxpayer's failure to substantiate expenses with appropriate records and documents results in the disallowance of the claimed deduction.

Two, there is major input into the audit by department chairmen or administrators who were responsible for the mismanagement in the first place. I wouldn't exclude them but I would encourage the auditors to take interviews with them with a big grain of salt.

For example, in discussions about journal transfers, the chairmen and finance officers are likely to admit that a lot of money was switched around but that in all or nearly all instances it was switched to "closely-related projects." These soothing words have proved to be very effective strategy for the universities.

Auditors are in no position to challenge the relatedness of scientific projects. They know that. The chairmen and finance officers know that. Therefore, most of the words spoken or written about "relatedness" are so much malarkey. However, frequently this "relatedness" excuse is accepted by the DHEW, if not by the auditors, then by their bosses. This exemplifies the meaning of a quote from the book *Government and Science* by Don Price.

In routine procedural matters the contracting or accounting officer may annoy the business manager of a university in endless petty details and make his decisions stick. But on the really important issues the head of a university laboratory, or the president of the university, can appeal to echelons high enough in the government structure—and with much more authority and influence than any subordinate civil servant would have—to win his point.

By contrast, audits of the GSA, for example, do not involve the esoteric. The GSA is a purveyor of the commonplace, goods and services which are as familiar to the auditors as their own cars or office furniture. Auditors, therefore, are in a good position to judge how many typewriters or calculators are needed for a Government building. Scientific equipment, supplies, even objectives, are another matter. The auditors should determine the "relatedness" of projects through interviews with research assistants who are blind to the auditors' evidence.

Three, there is not enough interviewing of principal investigators and nonprofessional personnel. With regard to principal investigators, I would concentrate on the nontenured and I would absolutely insist on the total privacy and confidentiality of those interviews. What happened in the recent audit at Harvard, where university officials demanded and were allowed to sit in on conversations between auditors

and principal investigators, has extraordinarily sinister implications. When first amendment rights are limited in the universities, those rights are everywhere in danger.

With regard to the nonprofessionals, most are young, hence more likely to show genuine shock when the auditors reveal, for example, that Dr. Smith's grant pays them even though they work for Dr. Jones. Intensive interviewing of this group, in privacy and confidentiality, would by itself allow quantification of the serious problems with the payroll which the auditors find but usually leave unquantified.

Four, the auditors who do the shirtsleeve work are not involved in the final resolution process of the audits. After all their hard work, the auditors refer the audits to "the Federal officials responsible for resolution of such matters." In the 100 audits we reviewed the auditors challenged \$420 million of the \$1.1 billion audited. That's nearly 40 percent of the total.

Of the \$420 million, the universities were asked to pay back only \$13.2 million. That's about 3 percent of the total challenged, and as of January 1978 not all of this had been paid back.

The penalties are really very painless. The small penalties are taken by the universities to mean that what they've been doing is all right. Just imagine what individual taxpayers would do if all knew that the IRS would settle with them for 3 percent of the fraud.

In the press releases relating to audit findings, the code phrases used are "redtape" and "academic freedom" by the universities, and "sloppy bookkeeping" by the DHEW.

We've already covered "sloppy bookkeeping." Let's concentrate for a few minutes on the phrases "redtape" and "academic freedom."

What do the universities mean by the "redtape"? The next slide shows some of the areas which the university lumps in with "redtape." In one respect the lumping is appropriate. It was the Federal grants which brought with them, to the not-always-enlightened universities, the regulations which helped most of these constituencies in their struggle for visibility on campuses.

I ask, which of these areas do the universities find so onerous an administrative burden? Towards which of these constituencies do the universities wish to remain unaccountable? Blacks? Women? Employees' safety? I doubt if the universities really want to do battle in any of these areas, when their chief objective, I think, is the audit trail of Federal grants. That's where the money is.

That is the red tape they are really talking about.

With regard to the audit trail, university administrators complain about the "redtape" not because it's so hard to maintain, but because they don't want to document the mismanagement. The salary certifications for 1,000 grants for 3 years could fit into a small hutch of three-drawer metal files, if departments and central administrations really didn't have an aversion to maintaining such files. However, as previously emphasized, this apparent aversion to paperwork doesn't apply to journal transfers—see previous slide—which are assiduously attended to on a large scale to bring hundreds upon hundreds of grant balances as close to zero as possible. The universities also maintain a good paper trail for supplies, to prevent fraudulent billing by vendors. The universities know how to maintain good books when they want to.

As for "academic freedom," the universities plead that time and effort reports are inappropriate for professionals who can't be held to strict accountability for their efforts. This argument is specious though. It is important to note that in the 100 audits we analyzed the auditors found that the payroll distribution system for nonprofessionals was as frequently deficient as that for professionals. The universities don't argue that nonprofessionals need to be protected from the burdens of strict accountability.

The universities don't use the phrase "academic freedom" in connection with nonprofessionals. Nonprofessionals are supposed to work a normal work week on specific tasks. They're not expected to hold forth on academic matters. But in the heart of the audit trail, specifically with regard to the salary certifications, the nonprofessionals and the professionals are treated similarly because it is necessary to treat both groups similarly to subvert the peer review system.

Moreover, while the universities are pleading for "academic freedom" for professionals, they are taking away by unlawful means money which principal investigators have won in national competition, and thereby depriving those principal investigators of "academic freedom."

The universities equate "academic freedom" with the right to speak out on all manner of things scientific or political. This is the "old" academic freedom, the kind Galileo didn't have. Galileo's problems were not with funding. His problems were with dogma. The theologians didn't like the way he interpreted his results.

By contrast, the principal investigators of today have no problems with dogma. Department chairmen and deans are willing to listen patiently to the most far-fetched scientific theories. However, many of these same chairmen and deans don't take kindly to anyone's questioning how they manage their departments' or schools' finances.

For example, the same chairman or dean who might himself sign his name to a full page ad in the New York Times protesting violation of human rights in faraway places might have his own definition of first amendment rights when the talk gets around to the handling of Federal grants in his own backyard.

There is a "new" loss of academic freedom these days. It's less easy to comprehend because its violations occur behind a wall of rhetoric generated by the universities about the "old" academic freedom, the kind Galileo didn't have. The old academic freedom is meaningless in the absence of control over the purse strings of hard-won grants.

Who are the persons whose academic freedom and constitutional rights are being denied? They happen to be the persons most likely to make important discoveries. The prizes come later in life, but the discoveries in the life sciences are mostly made by young investigators, many of whom are nontenured. Thus, the nontenured are on the ascending slope of the productivity curve in the life sciences, the part of the curve where there is the greatest limitation of free speech when it comes to talking about grants mismanagement. Also, among today's nontenured, three out of four are Ph. D.'s. Young Ph. D.'s are, therefore, the group which has to speak out about grants mismanagement but can't afford to. The job market for Ph. D.'s is very tight these days.

Young Ph. D.'s who are nontenured principal investigators unfortunately don't have the academic freedom or the economic base from

which to fight mismanagement of their grants by their chairmen. I believe that much creative potential is being lost by limiting at the departmental level the young investigators' access to their hardwon grant money. The peripheral workings of peer review make a mockery of the central process of peer review. While academia supports the latter, it subverts the former.

Let's go back to the audit trail so that I can close with recommendations for improving accountability and accounting. My plan centers on a reenfranchisement of principal investigators. They would prepare budgets as usual. Then they would have to sign all time and effort reports, all salary certifications and all pages of the reports of expenditures, with their full payroll signatures. This function could not be delegated to a "responsible" university official. That is the side step that must be avoided. That is the mechanism by which principal investigators are disenfranchised. That is the step which allows the audit trail to descend into a valley from which principal investigators are frequently excluded. For the word "responsible" in this context really means responsive to department chairman.

In addition, with my plan, principal investigators would receive all printouts of expenditures and all communications on Federal grants from the central finance offices, via first class mail. When I was at Harvard, Hale Champion's communications about Federal grants, including memoranda as well as printouts of expenditures, were addressed only to deans and department chairmen and not to the real money raisers, the principal investigators. Principal investigators should not have to ask department chairmen for this information. The DHEW has to face facts. Printouts of expenditures can be sequestered in the offices of department chairmen. When department chairmen pool and deliberately mishandle grants, they do their best to give out as little financial information as possible, as I observed firsthand at Harvard. Sequestration of the printouts of expenditures is a vital tool of the fraud. Chairmen should not be given the opportunity to sequester these printouts.

Would handling these pieces of financial data be too much of an administrative burden for principal investigators? Absolutely not. Reading and signing all of these documents would take in the aggregate no more than one-half working day per year per grant. The "burden" would be a pleasure. Principal investigators, particularly the nontenured, would be delighted to get their hands on all the documents they need to use the good judgment that God gave them. First, so that they could protect the funds they have won, and second, so that those funds would be available to buy the wherewithal to do the work which the peer review process said they should do. No more wondering where their hardwon money went. No more putting their careers on the line to challenge the mismanagement. When everyone in the Federal money chain knows what everyone else is doing, it will be harder to commit the fraud that is now being committed.

In my plan, the word "everyone" includes the nonprofessionals. The pay envelopes of nonprofessionals, in addition to notices of such events as university picnics and blood drives, should have a computer-generated printout showing the names of the principal investigators whose grants are paying them. That would set the stage for the dis-

armingly innocent but devastating question by a technician of a principal investigator, "Dr. Jones, I work for you, but how come Dr. Smith's grant pays me?"

With regard to indirect costs, I think that principal investigators should have input into the budget and expenditure processes for this area. As it is now, principal investigators contribute prodigiously to a block of money whose expenditure is a dark secret to most of them. I think that there should be indirect cost oversight committees which give principal investigators representation in proportion to the contribution of Federal dollars to the total budgets. Within this representation I would have a nontenured/tenured ratio which follows the ratio for the combined science faculties. For example, if such a committee at Harvard were to have 10 representatives, 3 would be principal investigators, 2 nontenured, and 1 tenured. Harvard administrators would still have a 70-percent majority but at least what is now a total mystery to most principal investigators would be in full view. I think that the principal investigators, particularly the nontenured, would be shocked to know, for example, what is included in Harvard's proposals for indirect costs.

This past spring, new OMB regulations were adopted which show that the OMB has been sweet talked by the universities into believing that the "redtape" of the audit trail is too burdensome to maintain. From now on, as I understand it, the universities will have to file only one huge salary certification annually with one signature on it. What that will do is to facilitate the perpetration of the fraud. It is easier to tell one big lie than many little ones, to turn in one big false certification instead of many little false certifications. This will put the Government's seal of approval, through an official regulation, on deliberate, willful, purposeful, and fraudulent grants mismanagement and will complete the disenfranchisement of the principal investigator. This part of the new regulations must be rescinded. To me as a principal investigator whose grants were misused by his department chairman, who was deprived of financial information and first amendment rights, this regulation is anathema.

Finally, the DHEW higher-ups should stop treating universities as favored clients whose dealings are beyond criticism. One by one in the last 20 years we've been disillusioned by the wheelings and dealings of the college-and-university-educated members of our society: physicians, lawyers, businessmen, politicians. The time has come for academics to join that list. The data overwhelmingly show that research universities are not above deliberately, willfully, and purposefully misusing taxpayers' money. The evidence for gross mismanagement is everywhere one looks. Let's not avoid seeing the evidence for what it is. There is mockery of peer review. There are false vouchers being submitted to the Government. There is loss of academic freedom. No amount of rhetoric by university authorities should be allowed to smooth over these multiple transgressions.

The DHEW should stop considering universities as more important than the principal investigators in them. If the universities need Federal money to survive, make them fight for it openly the way they expect their scientists to. The best way to stop the fraud would be for DHEW to treat universities the way DHEW now treats its other

clients who receive transfer payments: physicians, students, welfare recipients.

Fraud is fraud no matter who perpetrates it or why it's perpetrated.

Mr. FOUNTAIN. Doctor, you quoted on page 5 from a memorandum from the assistant dean for finances at the Harvard School of Public Health. You also made reference to another memorandum later on. Will you submit copies of those memorandums for our hearing record?

Dr. COHEN. Yes.

[The memorandums referred to follow:]

HARVARD SCHOOL OF PUBLIC HEALTH
 677 HUNTINGTON AVENUE
 BOSTON, MASSACHUSETTS 02115
 (617) 734-3300
 CABLE ADDRESS: HARYHEALTH

OFFICE OF THE DEAN

PERSONAL AND CONFIDENTIAL

TO: Dean, Hiatt

October 12, 1975

OBSERVATIONS ON DEAN'S REPORT FIGURES FOR 1974-1975

The 1974 to 1975 comparison reveals some notable developments in the School's finances. Overall, income availed of rose 34% from \$11,897,161 to \$15,851,967. Since the major component, federal funds rose almost 41%, the result was an increase from 62.3% to 66% in the percentage of such funds to the total. The very modest increase in training grants failed to keep pace with cost inflation while the 70% rise in stipends helped to underpin the sizeable increase in tuition income. Federal funds in fact supplied \$498,197 of total tuition receipts.

The net increase in federal funds was spread quite unevenly among the subdepartments. Of the total accession of new federal funds, \$1,125,215 or 36.7% was in Administrative General, \$701,519 or 22.9% occurred in Nutrition while an increase of \$714,633 or 23.3% of the total took place in Physiology. Together these three subdepartments accounted for 82.9% of the overall increase.

Federal contracts continued to represent an increasing fraction of federal research volume, rising from 34.5% to 37.3%. The major increase of 70% in stipends accompanied by only a small movement in training grants is a clear indication that federal policy to shift support from institutions to students is taking hold. This is not a good omen for the future.

While tuition income did increase about 33% from 1974 to 1975, tuition income as a percentage of total income availed of remained at 6%. Endowment income as a percentage of the total dropped from 11.3% to only 9% of income availed of. Non-federal soft-money grants and contracts rose about 25%. In view of the fact that such income fails to cover the total costs of the activities it generates, an added burden falls upon unrestricted expense without compensating income. In sum, hard money declined further as a percentage of income which must cover constantly-increasing indirect costs. The vulnerability inherent in dependence on federal dollars increased significantly. Soft money of all kinds accounts for about 90% of total direct expenditures.

The anticipated impact of the new procedures for internal redistribution of federal research indirect cost recoveries exceed prior estimates of revenue loss by more than \$100,000. As a post-closing transfer, about \$541,000 was charged to the School's indirect cost recoveries from federal research activities and credited to the accounts of the Medical School and School of Dental Medicine. The net effect of the large increase of modified direct federal research dollars was to depress the School's real indirect cost rate considerably below the average rate for the Medical Area and, therefore, much lower than the real rates for HMS and BSDM. It will be recalled that such a result was predicted when the new system was projected to begin on July 1, 1974.

In the face of this increasing inflation of soft-money income while hard overhead costs inexorably advance, the obvious question is how HSPH continues to enjoy operating surpluses. Although the size of the surplus fell about 50% from 1974 to 1975, reaching \$333,748, it is still favorable. As a percentage of total income available, though, it fell from about 5% to about 2%.

Despite the absence of real program budgeting, in my opinion it is not impossible to divine the financial dynamics of this sizeable, albeit dwindling, surplus. If one assumes that federal research activity should return at least its full cost, less cost sharing, then almost \$8.75 million of such research should be a break-even operation. The surplus must be derived elsewhere, in theory at least.

Unrestricted endowment income, interest on departmental balance and expense recovered from the Medical School total about \$620,000. Unrestricted expense other than costs of building operation amounts to about \$1.25 million. This leaves roughly a gap of \$630,000. Tuition and other student income of about \$975,000, providing it can be gained without appreciable incremental unrestricted expense, would produce a surplus of about \$345,000, not far from the real thing. While this is quite simplistic, the key concept in understanding the role of current educational programs is incremental unrestricted cost, since all tuition income is unrestricted income.

There are a number of inputs to the educational programs which either yield tuition income or absorb part of the burden of educational costs. Which is which is a matter of indifference since either process produces "free" unrestricted income.

Federal training grant and contract support, whether categorical or institutional represents a purposeful contribution by the government to our educational activities. In 1975 this grant support amounted to \$2,552,388 of which \$996,178 was for students and \$498,197 of that amount was received for tuition payments. About one tenth of the overall total was accounted for by the Formula Grant. Some additional federal direct funding was derived from the research training provisions of the General Research Support Grant.

On the non-federal side, a certain portion of restricted endowment income expended was utilized in the educational effort, ending up transformed into unrestricted tuition income without burden on unrestricted expense just as some such expenditures for federal research are returned through the indirect cost pool as unrestricted income.

The teaching programs benefit as well from some less-than-federally-intended diversion of federal funds which redounds to the benefit of SPH financial results. A certain portion of the salaries and fringe benefits of faculty supported by federal research funds is in fact diverted into the teaching programs. This ploy has double dividends. It not only enriches the catalog offerings available to tuition-paying students (i.e. unrestricted income) but it also tends to overstate the size of the federal research indirect cost pool by inadvertent inflation of its major component, the operating cost of space devoted to federal research, thus absorbing some of the burden of operating teaching space, otherwise fully an unrestricted expense. This double return—a welcome increase in unrestricted income and decrease in unrecovered unrestricted expense is not entirely reliable as a long-term device. A good deal of it rests upon the ability and willingness of the affected research faculty to continue the practice.

Some covert anomalies have served to increase further the relative fraction of total building operating costs which flow into the federal research indirect cost pool rather than into the School's unrecovered unrestricted expense accounts. While the original design of the Kresge Building called for the purchase of chilled water by the ton directly from the new Total Energy Plant, that is currently impossible. Instead, all the chilled water needed for Kresge airconditioning is provided free through a bypass from the steam absorption units in the Research Building. All the substantial steam costs to produce this non-research service are included in the costs of #665 and calculated as part of the research pool, shunting a major cost out of HSPH's unrestricted account. This practice will end in the not-too-distant future when Building and Grounds preventive maintenance will have administered the coup de grace to the absorption units and the Total Energy Plant is delivering metered chilled water.

A final quirk in the current allocation of Power House steam in the Medical Area will serve to add another facet to this account. As the system now operates, the Medical School ends up substantially absorbing the difference between the output of steam from the Power House and the metered use of other system members such as HSPH. Thus the inadequately-metered Medical School inherits the cost burden of meter malfunctions or condensate return anomalies which would tend to understate the consumption of the others.

A steam by-pass valve system at SPH #665 which allows steam to flow into the main building supply without passing through the meter developed a malfunction sometime between December, 1974 and April, 1975, despite preventive maintenance by B. & G. To what extent this accounts for a palpable underage in the year's projected steam cost for HSPH is impossible to determine. While a calculated adjustment has been made since the discovery and correction of the malfunction, the ultimate solution, which the Medical School is undertaking, is a major capital expenditure for new meter installations.

The point of this extended discussion of the probable origins of the School's operating surpluses is to underline the fragile and transitory nature of the many factors involved. Energy, space and, especially, security costs are rising significantly and will continue to do so. HSPH will be unable continuously to tap the till of over-allocated research costs. Should federal frank support of teaching stumble and covert support diverted from research faculty dwindle, unrestricted costs for educational programs could suddenly multiply dangerously, effecting a complete reversal financially.

Finally, there are additional danger signals in the continued and projected proliferation of new programs supported by non-federal funds which offer scant possibility of recapturing full indirect costs. If we pile on top of the potential loss of favorable factors underlying the recent and current surpluses the underrecovery of overhead costs not only on restricted endowment-supported activities but also an increasing gap of cost recovery from other non-federal soft-money sources, the surpluses will quickly be transformed into intractable deficits.

enclosure: comparison data for Dean's Report

distribution: Dean Whittenberger
Mr. Hale Champion
Dean Killin
Mr. David Barlow

Bill Claff
William L. Claff
Assistant Dean for
Financial Affairs

CONFIDENTIAL

Discussion of material to be included in prebudget letter due Dec. 27, 1974

Attached is a Xerox copy of the Budget Manual instructions for the pre-budget letter ordinarily due in early January but pushed forward to December 27th this year by the happenstance of a single Corporation meeting early in January. I have waited as long as possible since every week usually brings information not available before. The time has come, however, to discuss the letter on the basis of what is now available.

The columnar analysis enclosed is a starting point and I will attempt to explain the major expense and income projections as they look to me at this point. Since the pre-budget letter is a form of early-warning system for the Corporation, precision is not what is called for but rather an honest attempt to raise major issues and questions relating to the current and upcoming budget years. There will be honest differences of opinion among us regarding both time periods.

- The following items seem to me at this time to be relatively predictable:
- 1- O&M for 1974-75 will be about \$175,000 over B&G's original 74-75 estimate and 1975-76 will likely be at least \$150,000 above actual 74-75 figures assuming no palpable change in our operating schedules or Spartan caretaking levels. The worst-case possibility according to the current betting on final action by the D.P.U. on Boston Edison's rate-increase request is that political pressures persuade the D.P.U. to shift the incidence of increase toward big users to assuage the little man with a possible consequence of a 40% increase for the Power House. This would mean about \$180,000 in addition to the \$150,000 increase mentioned above.
 - 2- Institutional support from traditional training grants will be phasing out at a rate of about \$250,000 per year from now until 76-77 with a concomitant less per year of \$25,000 in indirect cost income. This will put pressure on 0001-1 sub-department allocations and compromise teaching resources already under increased enrollment pressures.
 - 3- The Countway Library fee seems almost certain to increase by about \$60,000 per year; the negotiations have been delayed but cannot be avoided. My information is that Meadow & Co. mean business for this fiscal year.
 - 4- At least for 75-76 inflation of 8-10% in salaries and wages appears certain with fixed rates for non-salary items.
 - 5- 55 Shattuck Street should soon have changed hands so that we might start earning about \$65,000 per year from the resulting endowment.
 - 6- We will start 75-76 with a sizeable GRS bank account, especially if current reports about 1975 GRS award levels can be trusted.
 - 7- Existing federally-supported research programs will be curtailed. Already Lown has lost two major grants, Micro will lose trachoma support (also from Aramco) and the disappointing windfall which rescued Waller and Chernin at the last instant will not continue. Many rejections have been received from November Councils and pending rescissions have put a hold on all new awards and a crimp in committed continuation funding.
 - 8- Newly-made Corporation policy will permit systematic charging of indirect costs to budgeted restricted endowment and gift income altho the precise methodology is not yet clear.
 - 9- Tuition remission is inevitable but the method is still unknown as is the net impact of HSPH tuition income retention.
 - 10- Administrative staff increases will occur in the Dean's Office and in the audio-TV area.

- The following figures appear to be a bit less profitable at this date:
- 1- 75-76 enrollment levels. My own impression from discussions with Dr. Worcester, Mrs. Stokes and Dr. MacMahon can be summed up as follows: the CAD may well react to the surprisingly large current enrollment by throttling admissions to a certain degree. Only outstanding candidates are being formally admitted and the situation will be reassessed in February with the view to avoiding as large an influx of new students. Dr. MacMahon seems to feel that the Committee on Long-Range Planning will have no meaningful conclusions in time to influence 75-76 admissions. Other faculties are considering increases of more than \$200. FAS will go for \$300, ditto Kennedy, RMS may well increase at least \$500. Perhaps HSPH might consider \$200. Some view the possibility of future wage-price controls as counseling higher increases as soon as possible.
 - 2- Institutional support either as formula or capitation grants are by no means in the bag. Perhaps the best bet now is that from the turmoil might come a simple extension. In any case my figures reflect the same dollar support as in recent years.
 - 3- The level of corporation salaries which will need 0001-1 support because of the lapsing of federal research and training grant support pending the one-year's grace period is unpredictable. The Levins program and the promise of a "budget" for the combined new two-year program are additional unknowns. The latter might possibly open a Pandora's Box of woe-too's.
 - 4- The projected size of the 75-76 federal indirect cost research pool is highly problematical. While rising O&N will push up the recovery per square foot of legitimate use, reduced intensity of space use and shrinking G&A attributable to federal research will depress the total. The small increment of space from the Continuing Education program will be more than offset by loss of expensive laboratory space attribution.
 - 5- Mr. Meadow has had his sights on the \$35,000 paid to HSPH for TPD Parasitology course ever since Drs. Ebert & Snyder made that treaty. With change in RMS curriculum and HSM's desire to reopen this subject along with Countway, I am not sanguine that we can hold that plum on its merits.
 - 6- It is likely that in the near future R&R will be asked to commit itself to a long-term parking commitment which will come in the form of guaranteeing to pay the annual costs of X number of garage spaces. Assuming that half the cost of each space- possibly \$720 per year- will be subsidized by the School- this is the current thinking of Meadow & Olendzki- how many spaces can we afford to preempt? If we shrink from a commitment, we will have no parking spaces. I have no ready answers but only the reiteration of Murphy's Law.

Turning to the discussion figures on the columnar sheet- the revised figure for line 3, 74-75 reflects a rounding off and the addition of \$60,000 for increased Countway Library costs. At this time there is no sound basis for estimating year-end actual figures. Half-year figures in late February will give a slightly firmer base. Line 1, non-salary expense reflects an increase of about 9% inflation plus the added \$60,000. Line 7 salaries reflects Dr. Leighton's departure from the payroll, an overall 8% pay increase and about \$25,000 in new personnel expense, part of which may accrue in 74-75. Line 4 sub-dept 0001-1 allocations will really depend on the incidence of salary-source losses from federal research and training decreases not legally absorbable from G&S pool, commitments made to Behavioral Sciences, unknown new 0001-1 costs from new two-year program, etc. I have little confidence in the figure except that I think it may be low. The projected O&N does not take into account possible major electric rate increases which may appear by early June, 1975 to compromise all Medical Area budgets.

1/17/76

On the income side, line 16 reflects a normal increase in endowment income as projected by the Treasurer plus \$65,000 in new income from 55 Shattuck property sale. Line 17 assumes no significant shrinkage in size of departmental balances. To extent that part may be capitalized as specific endowment, a slight increase in yield will occur. Line 18 is a critical item in doubt. It assumes a very moderate decrease in overall enrollment at a full-time rate of \$3,600 including the \$150 Health Fee. If the rate is raised to \$3,700, an additional \$25,000 may result. A very modest remission of \$45,000 to YAS for cross registration is included. This is about 5% of net income. Line 19 makes the assumption that HSPH will retain the YAS \$35,000. This may well be unwarranted. Lines 23 and 24 are gut intuitions of the net result of many complicated movements up and down in the recovery components. Since our recoveries are now pool related rather than direct dollar related, the year-to-year changes should not be violent since the total pool will move much less actively than the volume of direct dollars. An improvement in non-government recoveries is assumed, mostly from non-government contracts such as the rubber worker studies.

In general what I see is a growing threat to the adequacy of teaching resources just at the time that we are looking to the tuition income well to rescue us from rising O&M costs. The threats come from decreasing availability of "free" faculty from research grants and contracts as well as the inexorable decay of numbers of faculty supported in the past from regular training grants. Another well has become available in the form of taxable endowment income and we should consider what orderly steps can be taken to exploit this source while not forgetting that the diversion of those dollars from direct to indirect must mean reductions in the scope of activities now supported by those dollars.

Bill Carr

enclosures: Budget Manual page
Columnar Estimate Sheet

distribution: Dean Hiatt
Dean Whittenberger
Mr. Killin

Mr. FOUNTAIN. Thank you very much for a very interesting and forthright presentation of your findings and point of view.

I also want to thank you for a very comprehensive and revealing statement which will be made part of the record.

[See pp. 53-89.]

Mr. FOUNTAIN. We have a number of questions which we would like to ask. Have you been served with a committee subpoena?

Dr. COHEN. Yes.

Mr. FOUNTAIN. At page 2 of your prepared statement you indicate you were asked and required to sign blank report of expenditure forms, known as ROE's, even though you could not see a list of expenditures before you signed. You said you were told such information would not be provided to you or other principal investigators in the department.

You said, "Not knowing what to do I took the matter to the assistant dean for finances at the school of public health."

You indicate that you returned to him on several other occasions when you were required to sign blank ROE's and the school refused to comply with your request for details of expenditures from the NIH grant funds. Each time the assistant dean for finances told you he could not resolve the problem for you.

Would you identify that assistant dean for finances with whom you dealt?

Dr. COHEN. Yes. William Claff.

Mr. FOUNTAIN. Is he the same individual mentioned as assistant dean for finances on page 5 of your prepared statement?

Dr. COHEN. Yes.

Mr. FOUNTAIN. Dr. Cohen, you quote on page 5, paragraph 8, from an October 12, 1975 memorandum the assistant dean sent to Dean Hiatt of the school of public health, which you allege constitutes evidence that Harvard knowingly and deliberately diverted Federal research funds into teaching programs. Your quotation includes the words "covert support diverted from research faculty."

Is that quotation taken from the assistant dean's memorandum?

Dr. COHEN. Yes.

Mr. FOUNTAIN. While at Harvard, did you have teaching responsibilities in addition to your government-sponsored research?

Dr. COHEN. Not to amount to anything.

Mr. FOUNTAIN. What were your teaching responsibilities?

Dr. COHEN. Perhaps 3 or 4 hours of lectures per year.

Mr. FOUNTAIN. Did you have any other responsibilities at Harvard, such as special assignments?

Dr. COHEN. No.

Mr. FOUNTAIN. Did you find that compliance with Federal regulations, which required accurate and acceptable accounting records of the costs or expenditures for your research, was burdensome to you?

Dr. COHEN. No. I would have to qualify that by saying I did not get the information so that I could make a statement about them.

Mr. FOUNTAIN. You did not have anything to account for. Did you find these Federal regulation requirements hampered your research efforts?

Dr. COHEN. I don't understand the question.

Mr. FOUNTAIN. Requirements for accounting records—did they hamper your research?

Mr. CULLEN. If I may have just a moment.

Mr. FOUNTAIN. Have these auditing or accounting requirements hampered your research?

Dr. COHEN. They did not hamper my research. They in fact, at the time when I was able to manage them myself in the last year I was there, facilitated my research.

Mr. FOUNTAIN. I had in mind Federal regulations.

Can you tell us how Federal regulations facilitated your research efforts?

Dr. COHEN. Well, I would qualify that, Mr. Chairman. Federal regulations, if applied, would have facilitated my research.

At the time when I was able to manage the ordering of my own needs in the laboratory my research was facilitated by knowing what was going on because I was the sole accountant, orderer, and manager for ordering goods for my laboratory.

Mr. FOUNTAIN. You heard the representative of the General Accounting Office. He stated that in audit after audit that was made at a number of institutions, there was not really anything to audit.

I imagine in your situation you did not have any information upon which to base any conclusion.

Dr. COHEN. I did not have the data.

Mr. FOUNTAIN. Do you know how other scientific investigators at the schools with which you have been associated, and elsewhere, feel about the Federal accountability requirements? Have they complained to you, or otherwise expressed negative views, concerning the need for and the burden of reporting costs and keeping expenditure records?

Dr. COHEN. They have not specifically come to me and made statements one way or the other.

Mr. FOUNTAIN. Do you know of any other research scientists who were fired after they complained about or protested the improper use of Federal research grant funds?

Dr. COHEN. I have no personal knowledge other than the knowledge which is already known to the committee.

Mr. FOUNTAIN. I presume that your work at the university was satisfactory inasmuch as you had been recommended for promotion for a 5-year term. Had you ever received a poor or unsatisfactory performance rating prior to your separation at Harvard?

Dr. COHEN. No.

Mr. FOUNTAIN. You referred a number of times to violations of the peer review system and the university transfer of grant funds between research projects. I wonder whether you would specify briefly why you believe such transfers violate peer review.

Dr. COHEN. The transfers which occur between projects are done very frequently without the knowledge of the principal investigator. They are done by bookkeepers, accountants, administrative assistants. That is the way the ROE's are made to look good.

If the principal investigator is not aware that money has been transferred from his project to the project of another principal investigator and he does not have money to do what he wants to do in his project, that is a violation of peer review.

In this connection, an earlier comment by Congressman Wydler indicates an incomplete understanding of the peer review system. I quote: "I read some of the background here and I got the impression universities think it is a little like their money once it is into their treasury

and really they are doing a good job with it and that is all the Government should be interested in and not as to the specifics on deciding that this man's effort was helpful to the project or not."

I, respectfully, would like to answer Congressman Wydler and continue to answer your question. Chairman Fountain, at the same time and with the same comments. Principal investigators, not the universities, compete for and win these grants. The NIH rules and regulations state that the principal investigator, not the university, is responsible for the scientific and technical direction of the project. The principal investigator is, therefore, the person to decide that "this man's" effort was helpful to the project or not. If "this man" is paid for by project A but works on project B as a result of a decision of an administrator or department chairman, peer review is being willfully violated. As the system now operates that is what happens frequently. "This man" can be a professional, but also has as much chance of being a nonprofessional.

Whether he is a professional or nonprofessional, when "this man" is switched around by administrators or department chairman without regard to budgets or specific projects, there is mockery of peer review. In an attempt to cover up this fraud, funds are switched around by journal transfers to tidy up the reports of expenditures and keep Washington happy. This compounds the fraud and contributes to a far more serious situation from the scientific, legal and moral viewpoints than Congressman Wydler's comments suggest. Fraud and violation of peer review are inextricably related. When that is understood by the Congress and the DHEW, the fraud can be rooted out and eliminated.

Dr. GOLDBERG. Dr. Cohen, by a violation of peer review do you mean that because the evaluation and award process utilized by Government agencies, such as NIH, selects specific individual research projects for support, any diversion within an educational institution of the money intended for such a project would result in the unauthorized support of research or other activities that was not cleared through the peer review process? Is that what you have in mind?

Dr. COHEN. This is correct.

Mr. FOUNTAIN. Any other questions?

[No response.]

Mr. FOUNTAIN. Doctor, your statement would prompt us to ask a lot of detailed questions if we were not subject to limitations of time. However, I want to thank you for your frankness and your willingness to give us the benefit of your findings.

How did you get all of this information from other institutions?

Dr. COHEN. Under the Freedom of Information Act and I analyzed them myself with my attorney.

Mr. FOUNTAIN. What type of work are you engaged in at the present time?

Dr. COHEN. I am a physician. I am doing student health, industrial and prison medicine.

Mr. FOUNTAIN. Have you attempted to become associated with any university or college and been given a cold shoulder because of the experience you described to the committee?

Dr. COHEN. No.

Mr. FOUNTAIN. Thank you very much.

[Dr. Cohen's prepared statement follows:]

PREPARED STATEMENT OF DR. PHIN COHEN, SCIENTIST AND PHYSICIAN

My name is Phin Cohen. I am a scientist and physician. I have been married for 27 years and have 5 children. I have a bachelor's degree from Duke University and MD degree from the University of Maryland. After internship at Duke Hospital and two years service in the Air Force as a flight surgeon, I had a one-year residency at Boston City Hospital with a Harvard appointment, after which I spent 18 of the next 21 years doing research in the Harvard medical area, ten years before and 8 years after a 3-year leave of absence to do research in biochemistry in Holland.

I am a member of 4 national research societies: The American Society of Biological Chemists, the American Society for Clinical Investigation, the American Society of Hematology, and the American Federation for Clinical Research. I am also board certified in internal medicine and a Fellow of the American College of Physicians.

In my career I have been a technician, research fellow, project leader for another principal investigator, and principal investigator on various projects. I have done research in 3 environments: in a hospital, in a basic science laboratory which was removed from health science facilities, and in a laboratory in the Department of Nutrition of the Harvard School of Public Health. My research has concentrated on the physiology and biochemistry of human platelets, and the use of fluoride to treat demineralizing diseases of the skeleton.

The personal experiences which I shall describe began when I won three federal grants via the peer review system and as principal investigator on those grants assumed responsibility for a public trust. However, my presentation will not be confined to personal experiences. What began as a defense of my own grants has grown into an investigation of the entire system of grants mismanagement by universities in this country.

My exposure to grants mismanagement began when at the end of the first year on one of the NIH grants I had been awarded, an administrative assistant to the chairman of the Department of Nutrition of the Harvard School of Public Health gave me a blank Report of Expenditures (ROE) to sign. I informed her that I did not wish to sign a blank check and wished to see a list of expenditures before signing the ROE. I was told that such information would not be provided to me, or to other principal investigators in the department. Not knowing what to do, I took the matter to the Assistant Dean for Finances at the School of Public Health. He told me that the problem was not new and that he could not resolve it for me. At the end of subsequent years of my NIH grants more blank ROEs came along. I continued to ask for information regarding details of expenditures from my NIH funds. Repeatedly, these requests were denied. I returned to the Assistant Dean for Finances several times and each time was told that he

could not resolve the problem for me. He also informed me that if I continued to ask questions about the management of my grants it would be unhealthy for my career. Finally, my concern rose to such a level that I demanded that lists of expenditures be provided to me. When the information was turned over in the form of computer printouts of expenditures I saw that federal grants had been grossly misused by the Department of Nutrition. I saw that persons who had done no work for my projects had been paid with my NIH grant funds, contrary to NIH rules and regulations. Some of those persons were known to me and worked for other laboratories. Others were not known to me. The magnitude and pathways of misuse told me that the mismanagement certainly went beyond my grants. I requested the university to audit grants awarded to me and other principal investigators in the Department of Nutrition. This was not done.

Prior to demanding the lists of expenditures and requesting an audit of the Department of Nutrition, I had been recommended for promotion with a five-year term. This was under consideration, but when I questioned grants management practices my faculty reappointment which had been committed in writing was withdrawn.

Because of Harvard's failure to act on the grants mismanagement in the Department of Nutrition I subsequently reported the matter to the National Institutes of Health in December 1975. In February and March 1976 the Division of Management Survey and Review (DMSR), the auditing group of the National Institutes of Health, did an audit which showed that:

1. Persons who had done no work for my grants had been paid from my grants. Some of those persons were known to me and worked for other laboratories. Others were not known to me.

2. Other employees were charged to my grants in excess of the effort they spent on the projects.

3. The procedures used to allocate supply costs were inadequate.

4. Principal investigators besides me were also not getting adequate financial information concerning their projects.

5. Time and effort reports and salary certifications had not been signed by persons having firsthand knowledge of where the employees shown on those reports were actually working.

6. The findings were not limited to my grants. Two other grants in the Department of Nutrition were also found to have been mismanaged. This was not surprising to me.

7. The findings were not limited to the Department of Nutrition. Similar evidence for grants mismanagement was found in two other departments of the School of Public Health.

8. Persons were paid with research funds to teach courses despite the fact that this is specifically forbidden by federal regulations. That the School of Public Health knew this was against regulations but did it anyway, is confirmed in a memorandum dated 12 October 1975 from the Assistant Dean for Finances to Dean Hiatt of the School of Public Health:

"The teaching programs benefit from . . . diversion of federal funds which redounds to the benefit of School of Public Health Financial results. A certain portion of the salaries and fringe benefits of faculty supported by federal research funds is in fact diverted into the teaching programs. This ploy has double dividends. It not only enriches the catalog offerings available to tuition-paying students (i.e. unrestricted income) but it also tends to overstate the size of the federal indirect cost pool. . . ."

"The point of this extended discussion of the probable origins of the School's operating surpluses is to underline the fragile and transitory nature of the many factors involved. . . . The Harvard School of Public Health will be unable continuously to tap the till of overallocated research costs. Should federal frank support of teaching stumble and covert support diverted from research faculty dwindle, unrestricted costs for educational programs could suddenly multiply. . . ."

9. The auditors quantified their findings only in the Department of Nutrition and included only 5 grants of the more than 20 grants then active in that department. Moreover, the audit did not quantify all cost categories or all years of those five grants. For my three grants, as best I can determine, approximately two years were audited. For the other two grants, approximately one year was audited. Nevertheless, the auditors found that 132 thousand dollars of those five grants had been misspent.

10. Hale Champion, then Financial Vice President of Harvard, was informed of the auditors' findings and a decision was made to pay back to the government the entire sum of 132 thousand, penny for penny.

11. On the basis of these findings the director of the DMSR believed that the mismanagement might be widespread at Harvard and requested in a letter in June 1976 that the DHEW audit agency do a general audit of the School of Public Health and all other schools which receive federal grants at Harvard.

With confirmation of my allegations of grants mismanagement in the Department of Nutrition, and with evidence that the problems extended to other departments of the School of Public Health, I then looked for evidence of grants mismanagement in other areas at Harvard. I now shall give quotes from 3 audits of selected cost elements which were done at Harvard while I was a principal investigator there.

1. Review of Indirect Cost Rates for Fiscal 1971.
(reported in June 1971).

"Specific information on administrative assignments was provided to us on 351 persons or about 66 percent of the total of 530.

"The information provided on the 351 persons indicated that the administrative costs (amounting to \$743,723) proposed were related primarily to committee assignments such as committees on curriculum, admissions, undergraduate students and studies, professors, higher degrees and PhDs. . . ; also proposed were tutors, house masters and administrative assignments related to continuing education programs and athletics.

"In our opinion, these functions are related to the administration of instructional activities with no, or only incidental, benefit to the Federal research activity."

2. Review of Pension Reserves Valuations and Proposed Pension Cost Contributions (reported in September 1974).

"In our prior report, we stated that, based on the results of our review, the Harvard pension plans were overfunded. The outcome of this is that there were 'excessive pension cost contributions of \$686,812 charged to operations for fiscal years 1973. Since the Federal Government. . . is charged with about 25 percent of Harvard's total salary cost (and related pension costs)' . . . the Federal Contributions to said plans should have been reduced by \$171,703 for fiscal 1973.

"...if Pension Reserves are not properly valued. ... excessive annual pension cost contributions will continue to be assessed against federal grants and contracts."

3. Review of Fringe Benefit Cost Rates (reported in July 1976). Including: Pension, Blue Cross/Blue Shield, University Health Service, Social Security, Group Life Insurance, Air Travel Insurance, Unemployment Compensation, Industrial Accident.

"During fiscal years 1970 through 1975 the University included (in its fringe benefit cost rate computations) costs totalling approximately \$3.9 million that should have been excluded.

"Federal grants and contracts were overcharged for that period. . . ."

Now we return to pick up the thread of the story in April 1977 at which time the DHEW had not acted on the request by the director of the DMSR for a general audit. In April, 1977 I brought suit against: President Derek Bok and the Fellows of Harvard University; Howard Hiatt, the Dean of the School of Public Health; and Fredrick Stare, my Department Chairman. I brought suit for two reasons: for myself and for the public trust. For myself, I sought compensatory restoration of my faculty appointment and scientific footing. For the public trust,

I asked for a general audit of federal grants management at Harvard University. The lawsuit is in progress in federal Court. The general audit of Harvard began in August 1977. This was 15 months after the DMSR had requested that a general audit be done.

The total in federal funds to be covered by that audit amounts to 225 million dollars for 3 years - 1975, 1976 and 1977. The audit is not yet completed. Thus far, only the audit of the School of Public Health, 37.1 million dollars of the total, has been reported.

I shall give quotes from that audit which I believe follow the trend established in the DMSR audit, to show the widespread nature of the problems:

1. " : .in our test of cost transfers totaling \$1.8 million almost \$700,000 or over 37% involved the transfer of salary costs. We found that even though the initial distribution of salary costs were certified, all or a portion of those certified salary costs were later transferred to other federal projects. We believe that the magnitude of these adjustments provides sufficient data to seriously question the credibility of the payroll distribution system, including the certification process utilized by the School of Public Health.

"Accordingly, under such circumstances, we cannot attest to the propriety of about 15 million dollars charged

to Federal grants and contracts during fiscal years 1975, 1976 and 1977."

2. "...The persons certifying were certifying only to the amount charged and no attempt was being made to relate the amount charged to the effort expended on the federal project."

3. "...The School of Public Health cannot provide reasonable assurance to Federal grant/contract awarding agencies that consultant costs of about 245 thousand dollars charged to Federal projects during fiscal years 1975, 1976 and 1977 were appropriate."

4. "...in 27 cases where payments were made to individuals...there was neither a bill for services on file at the University nor was there evidence that the services were performed."

5. "...About 29 percent of costs selected in our sample are unallowable.... We estimate that costs of about 2.1 million dollars were inappropriately charged to federal projects."

6. "...Numerous transfers were made to reduce project overruns and also to utilize unexpended funds by transferring costs applicable to other projects."

7. "...There was significant accounting activity involving late charges and cost transfers."

"This activity which occurred between the grant period closing dates and the preparation and submission of the report

of expenditures resulted in equalization of awarded amounts and total expenditures as finally recorded on the accounting records."

One further quote from this audit is most disturbing:

"All interviews were arranged for us by a representative of the University's internal audit department and at each interview, we were accompanied by a member of the internal audit department, an individual from the SPH business office or a designated administrative assistant(s) from the various departments within the SPH."

The earlier DMSR audit proceeded under no such handicap. Thus, in between audits a radical change in the ground rules for conduct of the second audit had taken place. The principal investigators already had the chilling example of my termination to remind them of the cost of telling it like it is. But just to make sure that whatever principal investigators chose to say in front of the auditors would also be said in front of a Harvard administrator, and therefore would not be confidential, Harvard pushed for and DHEW acquiesced to a change in the ground rules of an extremely important phase of the audit.

Prior to the start of the general audit at Harvard, I had enough information to point to serious problems in several areas of grants mismanagement by Harvard. I then wondered in the Fall of 1977 whether the problems were confined to Harvard.

I then analyzed 100 DHEW audits of institutions spread over the entire country. All of these audits were reported in 1976-77.

Were it not for my experiences at Harvard I would not have been able to glean as much information from the 100 audits as I did.

The first slide shows the variety and frequency of the problems. In nearly two-thirds of the audits, serious problems were detected with payroll records for professional and non-professional salaries. In the DMSR audit of my grants the problems in this area were mostly with nonprofessionals.

The next slide shows the audit trail for payroll records. Principal investigators prepare the budgets. Then the audit trail descends into a valley from which principal investigators were frequently excluded at the Harvard School of Public Health, and, I think, at many other science schools within universities around the country. In many of their reports, the auditors wrote that time and effort reports were kept by administrative assistants who did not have firsthand knowledge of where employees actually worked, as was the case in the Department of Nutrition and other Departments at the Harvard School of Public Health. The auditors also found time and again that after-the-fact salary certifications were frequently signed by persons not having firsthand knowledge of where employees worked, as was the case at the Harvard School of Public Health.

The reason why principal investigators frequently don't see these two types of documents of the audit trail is that these documents contain information which if known to principal investigators would lead them to disturbing conclusions about the reliability, trustworthiness and motives of those responsible for the mismanagement.

The lists of expenditures are often generated by computers as printouts at one or two month intervals. If these documents mirror falsified salary certifications, they will probably also be kept from the principal investigators as was the case in the Department of Nutrition and elsewhere in the Harvard School of Public Health.

As we emerge from the valley there are the ROEs which the DHEW says principal investigators must sign once a year to tuck away the grants. The ROEs have two components as a rule: one, the face sheet which has very little in the way of financial information on it; the other, a sheet with more financial data but only pertaining to big categories and lacking in detailed information on who was paid and what was purchased. So, as the audit trail emerges from the valley, the principal investigators may be asked to sign incomplete documents, often consisting only of the face sheet, as happened to me in the Department of Nutrition of the Harvard School of Public Health.

I would like to stress some aspects of this type of bookkeeping:

1. The manipulation of these documents results in the deliberate, willful and purposeful subversion of peer review.
2. An audit trail which involves the falsification, sequestration and frequent changing of documents had better be maintained by skillful as opposed to "sloppy" bookkeeping.
3. The bookkeepers had better share their techniques and data with as few people as possible, principal investigators and auditors included. When auditors come around it is best to pretend that these documents never existed, don't exist now, or can't be found, since the manipulations of these documents are the footprints, what lawyers call the indicia, of fraud.
4. Since virtually all of the information of the audit trail originates at the departmental level and is rarely modified after that, it is obvious that the university finance offices do not oversee departmental grants management the way they're supposed to, and thereby become participants in the fraudulent mismanagement of federal grants.

However, university administrators don't limit their participation to poor oversight. They add some mismanagement of their own. The following is a list of examples from the 100 audits in addition to those I quoted earlier from the Harvard audits:

1. The accounting office directed in writing that cost overruns be eliminated by journal transfers.

2. Salaries were recovered twice, once each from both direct and indirect costs.

3. There was excessive federal contribution to an unemployment compensation fund "so as to create a contingency reserve."

4. There was improper withholding of social security taxes.

5. There was overbilling of federal grants for medical insurance.

6. The university kept unclaimed checks.

7. The university retained student aid money for students who did not matriculate.

In every cost category many universities do their best to include the uncludable, allocate the unallocable or retain the unretainable.

Let's return to a previous slide. Supply costs were frequently levied against those awards with the most available money and not according to which specific project ordered, needed, or received the supplies.

To tidy up all of these manipulations of personnel and supply charges so that Washington thought all was smooth, the departmentally-based bookkeepers, at Harvard and elsewhere,

used the mechanism of journal transfers. Journal transfers are the putty of grants mismanagement. They smooth over the cracks which need smoothing to make sure that the ROEs look neat and proper and as frequently as possible come out to a zero balance. Journal transfer activity was frequently very heavy near the time of preparation of the ROEs. Journal transfer activity is assiduously attended to on a large scale and is very skillfully done. There is nothing sloppy about it. It is part of the skillful bookkeeping at the departmental level which is fraudulent and makes a mockery of peer review. The auditors' phraseology, repeated with slight variations, in audit after audit, went something like this:

"The excessive numbers of journal transfers were obviously used to eliminate cost overruns. Inappropriate spenddowns of grants to zero balances were done to avoid having to return money to Washington."

Thirty percent of the time the auditors found that the universities had no or inadequate written procedures for the management of federal grants. In some cases there were no written procedures whatever, as I discovered at Harvard in 1975, despite the fact that Harvard had been specifically told in an audit in the late 1960's that a set of written procedures was essential to establish a chain of responsibility for proper grants management.

In other cases among the 100 audits the written procedures were published but were incomplete. In still other cases, written procedures were adequate but the universities weren't following their own procedures.

On the right are categories not necessarily linked to peer review (list will be read). The height of the bars doesn't reach the level found with salaries and wages, again because the auditors focus on salaries and wages and have only so much time and so much manpower. But there were some disturbing findings in these categories. First class travel was often used excessively despite DHEW policy which states that economy class should be used in virtually all circumstances. Consultants often didn't submit vouchers for services rendered, as was the case at Harvard. It is worth constant emphasis that the mismanagement touches nearly every cost category.

We found only a handful of audits where cash flow had been examined. The problems here centered on the use of the letter-of-credit. Let us say that principal investigators at a given university win 48 million dollars in grants for a one-year period. On that basis, the federal government issues a letter-of-credit on which monthly drawdowns can be made. There are two ways a given university can misuse the letter-of-credit. One is to draw 4 million dollars a month ($4 \times 12 = 48$ million) in the first part of the month, most of which,

in the form of salaries and wages, is disbursed in the latter part of the month. This gives the university two or three weeks with money which it can put into short term investments. Even 2 weeks interest on 4 million dollars is not exactly peanuts. But just imagine short term investments rolling over so that 2 or 3 million dollars are constantly earning money for the university while waiting to be disbursed, and if the money isn't doing that for the university it could be doing that for Uncle Sam. Another variation is to drawdown 4.1 million dollars, 100,000 dollars more than is needed, month after month after month until several million dollars in excessive drawdowns accumulate in the bank, and that kind of money drawing interest for the universities or not drawing it for Uncle Sam isn't peanuts either.

The last bar on the right refers to previous warnings. In nearly 20 of the 100 audits, problems which were found had been found on previous audits. The universities had been notified in writing of the deficiencies, but had not corrected them. In one instance, involving a major research university, three consecutive warnings were issued over an 8-year period. In each instance the recommended corrective measures were ignored but the federal money kept coming.

The next two slides schematically represent to the best of my knowledge what happens at several levels when grants mismanagement occurs.

The second bar on the left, representing direct costs is made up of multiple small squares, each representing a specific award won by a specific principal investigator. To its left is an indirect cost bar which is 60% the height of the direct cost bar. Indirect costs are defined as costs which can't be identified with specific scientific projects but which benefit a group of scientific projects. The top part of the indirect cost bar, a block labeled "other" for nonscience activities is about ready to topple over into a pool of discretionary money for the university. This leaves fewer indirect costs to send over to the science areas. The indirect cost bar which used to be this height is now only this high by the time it gets to the science school.

Lately, the universities have been pushing for "full" indirect cost reimbursement. What is meant by "full" in this context is obscure, since universities have for a long time used some of their indirect cost awards for nonscience functions. What is left of indirect costs after the house takes its cut, so to speak, goes to support overhead costs for science. If not enough money trickles down to the science departments, an artificial "need" for more indirect costs is created. It's like the story of a husband who drinks up a good part of his paycheck each week and then complains to his boss that he

doesn't make enough to feed his family. The boss doesn't know about the drinking, but the wife, of course, does. In the money chain of indirect costs, the Congress is the boss, the university finance officers are the husbands and the scientists are the wives. In each case, the wives don't complain because the husbands don't like to be challenged, and besides, the boss is generous and will probably give a raise anyway - he always has. So, the game continues to be played. The university higher-ups supply the rhetoric, Congress supplies the cash, and the scientists worry about what will happen to themselves or science if they speak up. Science department chairmen, many with national and international reputations in a discipline which seeks the truth, are afraid to speak the truth in public about diversions of indirect costs, which principal investigators (often including themselves) in their own departments have raised.

At this point the direct costs are still intact. However, at the departmental level two phenomena are observed. The direct cost bar is truncated to provide for administrative services which the department chairmen perceive that they need and which, in fact, should have been paid for by indirect costs. The bar is created de novo by "assessing" direct cost awards even though neither the job nor the personnel who are paid by this mechanism appear on the direct cost budgets. These departmental administrative services, whether paid by indirect

costs or by "assessing" direct costs, are often duplicative of services paid for elsewhere in the university. A quote from an internal memorandum dated 11 November 1973 to Dean Hiatt of the School of Public Health illustrates this point:

"Each little duchy has its own duplicate set of super-secretary-administrators, bookkeepers, lesser secretaries. . . and a manner of living replete with department kitchens and a sense of homey *gemutlichkeit*."

You might think at this point that the chairmen would have taken enough from the direct cost awards, but to show how little peer review is respected at the departmental level, barriers separating many of the direct cost awards are broken down by many chairmen without regard to budgets or projects or peer review. This is pooling, plain and simple. That's why in the figure many of the small squares have blended into an open expense. Overall, there is less money in the direct cost bar than there used to be, and a fair amount of what remains is pooled. In any case, there is less to go around to many of the winners of the peer review competition.

I call this whole process a quest for discretionary money. It begins at the top and cascades through the system. The end result is the conversion of nondiscretionary money into discretionary money. It is done deliberately, willfully and purposefully, and violates the NIH rules, regulations and policies as well as the spirit and intent of the peer review system.

Two points to keep in mind as we go through the next slide are that the mismanagement is the result of extremely skillful bookkeeping at the departmental level, and that there is deliberately sloppy oversight at higher levels.

Let's begin at the bottom with the money raisers, the principal investigators. Each small box is a specific grant won by a specific investigator in national competition. Many departments pool variable numbers of these grants. Administrative assistants hired by and responsive to the department chairmen, but ironically often paid by federal monies raised by the principal investigators, handle the accounts with consummate skill so that 1) peer review is subverted to create a discretionary pool of money for the chairmen to dispense, 2) time and effort reports and salary certifications are falsified, and 3) journal transfers are used to bring grant balances to zero so that no money is returned to Washington.

The departments channel their communications through the science schools to the central finance offices. In the reverse direction the central finance offices communicate with the deans and department chairmen but not with principal investigators, as was the case at Harvard when I was there.

I say that communications go through the finance offices of the schools because the latter are frequently, with regard to federal grants, only conduits for the flow of information prepared by the departments. The bookkeeping is departmental in origin. This is most important to keep in mind. The thickness

of the walls of the rectangle above the science schools is here to show that the central administrations do not know or pretend not to know what goes on at the departmental level. The solid circle shows that the central finance offices collect data from all departments in all schools which have federal grants, and, like the schools, at best perfunctorily review the data that they receive. There is a net positive flow of federal money which has been transformed into discretionary money from various nondiscretionary cost categories - indirect costs, fringe benefits or whatever - towards the central administrations. To the left and right of this federal block of money are the other major blocks of money which a research university such as Harvard would have: endowment and tuition.

For the private universities, it is interesting to compare the methods of accounting for these blocks of money. This is important because federal regulations state that federal monies should be managed with the same care and prudence as the private funds of the universities. The endowment is managed by investment advisors who know where every dollar sits. The management is expert, meticulous and prudent. The discretionary block is audited by a private accounting firm. However, these audits don't usually cover the federal component. I was told by a Harvard official that Harvard's private auditors do not audit federal monies. At this level in the diagram the federal contribution to the universities' general operational fund

is seen as a natural phenomenon, analogous to the contribution of the Mississippi to the Gulf of Mexico. Beyond the Mississippi delta no one could sort out the molecules of the Mississippi from the brine. At many of the research universities the federal component of the budget exceeds the income from tuition. This was not the case 15 or 20 years ago. At Harvard federal dollars make up 30 percent of the entire university budget and 70 percent of the budget of the health science schools.

The auditing of federal monies is usually left entirely to federal auditors as it was at Harvard while I was a principal investigator.

The auditing of the federal component of university budgets is of 3 types. The "continuous" audit involves "spot checks", "off and on" by one or two auditors from the regional DHEW office. "Spot checks" means a fraction of all transactions. "Off and on" means several times a year. These audits deal with paper transactions and not directly with people in laboratories and have virtually no impact.

Audits by the Division of Management Survey and Review of the National Institutes of Health are another matter. Many of these audits result from specific complaints from individuals who have observed wrongdoing firsthand. Some of these complaints are anonymous. If the informant identifies himself and keeps his job long enough to be present when the auditors arrive, he can point out the problems in great detail. As a result, these audits usually involve intensive interviewing of laboratory

personnel in addition to university officialdom. Sometimes these audits find serious troubles, in which case the head of the division recommends that a "comprehensive" audit be done, as happened in my case at Harvard.

The "comprehensive" audit begins and is conducted seriously. However, its outcome is preordained. I see 4 characteristics of this type of audit which limit its impact:

1. Much of the audit trail isn't produced for the auditors. Nor is it demanded by the auditors. Ivy-covered halls are places in which to utter requests, not issue demands. This is totally unlike an IRS audit where a taxpayer's failure to substantiate expenses with appropriate records and documents results in the disallowance of the claimed deduction.

2. There is major input into the audit by department chairmen or administrators who were responsible for the mismanagement in the first place. I wouldn't exclude them but I would encourage the auditors to take interviews with them with a big grain of salt. For example, in discussions about journal transfers, the chairmen and finance officers are likely to admit that alot of money was switched around but that in all or nearly all instances it was switched to "closely related projects." These soothing words have proved to be a very effective strategy for the universities, and exemplify the meaning of a quote from the book Government and Science by Don Price of Harvard:

"In routine procedural matters the [government] contracting or accounting officer may annoy the business manager of a university in endless petty details and make his decisions stick. But on the really important issues the head of a university laboratory, or the president of the university, can appeal to echelons high enough in the government structure - and with much more authority and influence than any subordinate civil servant would have - to win his point."

Auditors are in no position to challenge the relatedness of scientific projects. They know that. The chairmen and finance officers know that. Therefore, most of the words spoken or written about relatedness are so much malarkey. However, frequently this "relatedness" excuse is accepted by the DHEW.

By contrast, audits of the GSA, for example, do not involve the esoteric. The GSA is a purveyor of the commonplace, goods and services which are as familiar to the auditors as their own cars or office furniture. Auditors, therefore, are in a good position to judge how many typewriters or calculators are needed for a government building. Scientific equipment, supplies, even objectives, are another matter. The auditors should determine the "relatedness" of projects through interviews with research assistants who are blind to the auditors evidence. There will be more on this in the next paragraph.

3. There is not enough interviewing of principal investigators and nonprofessional personnel. With regard to principal investigators, I would concentrate on the non-tenured

and I would absolutely insist on the total privacy and confidentiality of those interviews. What happened in the recent audit at Harvard, where university officials demanded and were allowed to sit in on conversations between auditors and principal investigators, has extraordinarily sinister implications. When First Amendment rights are limited in the universities, those rights are everywhere in danger.

With regard to the nonprofessionals, most are young, hence more likely to show genuine shock when the auditors reveal, for example, that Dr. Smith's grant pays them even though they work for Dr. Jones. Intensive interviewing of this group, in privacy and confidentiality, would by itself allow quantification of the serious problems with the payroll which the auditors find but usually leave unquantified. In the DMSR audit of my grants most of the payroll "exceptions" were with nonprofessionals. Importantly, I was still around when the auditors arrived so that I could say how ridiculous it was for department administrators to even suggest that technicians X or Y were working on "related" projects.

4. The auditors who do the shirtsleeve work are not involved in the final resolution process of the audits. After all their hard work, the auditors refer the audits to "the federal officials responsible for resolution of such matters." In the 100 audits we reviewed from a 12-month period in 1976 and 1977, the auditors challenged 420 million dollars of the 1.1 billion dollars audited. That's nearly 40 percent of the total.

Of the 420 million, the universities were asked to pay back only 13.2 million. That's about 3 percent of the total challenged, and as of January, 1978, not all of this had been paid back. The penalties are really very painless. The universities can build into their thinking that gross mismanagement will cost them only a few percent of the bottom line of that mismanagement. The small penalties are taken by the universities to mean that what they've been doing is all right. Small wonder that they continue to deliberately, skillfully, and purposefully mismanage federal funds on a grand scale. Just imagine what individual taxpayers would do if all knew that the IRS would settle with them for three percent of the fraud.

In the press releases relating to audit findings, the code words used are "red tape" and "academic freedom" by the universities, and "sloppy bookkeeping" by the DHEW.

We've already covered "sloppy" bookkeeping. Let's concentrate for a few minutes on the phrases "red tape" and "academic freedom".

What do the universities mean by the "red tape"? The next slide shows some of the areas which the university lumps in with "red tape". (List will be read.) In one respect the lumping is appropriate. It was the federal grants which brought with them, to the not-always-enlightened universities, the regulations which helped most of these constituencies

in their struggles for visibility on campuses. I ask, which of these areas do the universities find so onerous an administrative burden? Towards which of these constituencies does the university wish to remain unaccountable? Blacks? Women? Employees' safety? I doubt if the universities really want to do battle in any of these areas, when their chief objective, I think, is the audit trail of federal grants. That's where the money is. That's the "red tape" they're talking about.

With regard to the audit trail university administrators complain about the "red tape" not because it's so hard to maintain, but because they don't want to document the mismanagement. The salary certifications for 1,000 grants for three years could fit into a small hutch of three-drawer metal files, if departments and central administrations really didn't have an aversion to maintaining such files. However, as previously emphasized, this apparent aversion to paperwork doesn't apply to journal transfers which are assiduously attended to on a large scale to bring hundreds upon hundreds of grant balances as close to zero as possible. Let's look back at that slide. The universities also maintain a good paper trail for supplies, to prevent fraudulent billing by vendors. The universities know how to maintain a good paper trail when they want to.

As for "academic freedom", the universities plead that time and effort reports are inappropriate for professionals who can't be held to strict accountability for their efforts. This argument is specious though. It is important to note that

in the 100 audits we analyzed the auditors found that the payroll distribution system for nonprofessionals was as frequently deficient as that for professionals. The universities don't argue that nonprofessionals need to be protected from the burdens of strict accountability. The universities don't use the phrase "academic freedom" in connection with nonprofessionals. Nonprofessionals are supposed to work a normal work week on specific tasks. They're not expected to hold forth on academic matters. But in the heart of the audit trail, specifically with regard to the salary certifications, the nonprofessionals and the professionals are treated similarly. The fact is that payroll records for nonprofessionals are treated in a similar way to those of professionals because it is necessary to treat both groups similarly to subvert the peer review system. Moreover, while the universities are pleading for "academic freedom" for professionals, they are taking away by unlawful means money which principal investigators have won, in national competition, and thereby depriving those principal investigators of "academic freedom".

But the loss doesn't stop there for principal investigators. Their First Amendment rights don't exist when it comes to complaining about mismanagement.

The universities equate "academic freedom" with the right to speak out on all manner of things scientific or political. This is the "old" academic freedom, the kind Galileo didn't have. Galileo's problems were not with funding. He had the wherewithal

to support his major works. His problems were with dogma. The theologians didn't like the way he interpreted his results.

By contrast, the principal investigators of today have no problems with dogma. Department chairmen and deans are willing to listen patiently to the most far-fetched scientific theories or the most radical political ideas. However, many of these same chairmen and deans don't take kindly to anyone's questioning how they manage their departments' or schools' finances. For example, the same chairman or dean who might, himself, sign his name to a full page ad in the New York Times protesting violations of human rights in faraway places, might have his own definition of First Amendment rights when the talk gets around to the handling of federal grants in his own backyard.

Many modern day principal investigators wouldn't mind a dogmatic assault on results or conclusions of their experiments, if they could only get their hands on all of the money to do the experiments which lead to those results, and which peer review said they could do. There is a "new" loss of academic freedom these days. It's less easy to comprehend because its violations occur behind a wall of rhetoric generated by the universities about the "old" academic freedom, the kind Galileo didn't have. The old academic freedom is meaningless in the absence of control over the purse strings of hardwon grants.

Who are the persons whose academic freedom and constitutional rights are being denied? They happen to be the persons most likely to make important discoveries. The prizes come later in life, but the discoveries in the life sciences are mostly made by young investigators, many of whom are nontenured. Thus, the nontenured are on the ascending slope of the productivity curve in the life sciences, the part of the curve where there is the greatest limitation of free speech when it comes to talking about grants mismanagement. Also, among today's nontenured, three out of four are PhDs. Young PhDs are, therefore, the group which has to speak out about grants mismanagement but can't afford to. The job market for PhDs is very tight these days. Young PhDs who are nontenured principal investigators unfortunately don't have the academic freedom or the economic base from which to fight mismanagement of their grants by their chairmen. I believe that much creative potential is being lost by limiting at the departmental level the young investigators' access to their hardwon grant money. The peripheral workings of peer review make a mockery of the central process of peer review. While academia supports the latter, it subverts the former.

Let's go back to the audit trail so that I can close with recommendations for improving accountability and accounting. My plan centers on a re-enfranchisement of principal investigators. They would prepare budgets as usual. Then they would have to

sign all time and effort reports, all salary certifications and all pages of the reports of expenditures, with their full payroll signatures. This function could not be delegated to a "responsible" university official. That is the side step that must be avoided. That is the mechanism by which principal investigators are disenfranchised. That is the step which allows the audit trail to descend into a valley from which principal investigators are frequently excluded. For, the word "responsible" in this context really means responsive to department chairmen.

In addition, with my plan, principal investigators would receive all printouts of expenditures and all communications on federal grants from the central finance offices, via first class mail. When I was at Harvard, Hale Champion's communications about federal grants, including memoranda as well as printouts of expenditures were addressed only to deans and department chairmen and not to the real money raisers, the principal investigators. Principal investigators should not have to ask department chairmen for this information. The DHEW has to fact facts. Printouts of expenditures can be sequestered in the offices of department chairmen. When department chairmen pool and deliberately mishandle grants, they do their best to give out as little financial information as possible, as I observed firsthand at Harvard. Sequestration of the printouts of expenditures is a vital tool of the fraud. Chairmen should not be given the opportunity to sequester these printouts.

Would handling these pieces of financial data be too much of an administrative burden for principal investigators? Absolutely not. Reading and signing all of these documents would take in the aggregate no more than one half working day per year per grant. The "burden" would be a pleasure. Principal investigators, particularly the nontenured, would be delighted to get their hands on all the documents they need to use the good judgment that God gave them 1) so that they could protect the funds they have won and 2) so that those funds would be available to buy the wherewithal to do the work which the peer review process said they should do. No more wondering where their hardwon money went. No more putting their careers on the line to challenge the mismanagement. When everyone in the federal money chain knows what everyone else is doing, it will be harder to commit the fraud that is now being committed. In my plan, the word "everyone" includes the nonprofessionals. The pay envelopes of nonprofessionals, in addition to notices of such events as university picnics and blood drives, should have a computer-generated printout showing the names of the principal investigators whose grants are paying them. That would set the stage for the disarmingly innocent but devastating question by a technician of a principal investigator, "Dr. Jones, I work for you, but how come Dr. Smith's grant pays me?"

With regard to indirect costs I think that principal investigators should have input into the budget and expenditure processes for this area. As it is now, principal investigators

contribute prodigiously to a block of money whose expenditure is a dark secret to most of them. I think that there should be indirect cost oversight committees which give principal investigators representation in proportion to the contribution of federal dollars to the total budgets. Within this representation I would have a nontenured/tenured ratio which follows the ratio for the combined science faculties. For example, if such a committee at Harvard were to have 10 representatives, three would be principal investigators, two nontenured and one tenured. Harvard administrators would still have a 70 percent majority but at least what is now a total mystery to most principal investigators would be in full view. I think that the principal investigators, particularly the nontenured, would be shocked to know, for example, what is included in Harvard's proposals for indirect costs.

This past Spring new OMB regulations were adopted which show that the OMB has been sweet talked by the universities into believing that the "red tape" of the audit trail is too burdensome to maintain. From now on, as I understand it, the universities will have to file only one huge salary certification annually with one signature on it. What that will do is to facilitate the perpetration of the fraud. It is easier to tell one big lie than many little ones, to turn in one big false certification instead of many little false certifications.

This will put the government's seal of approval, through an official regulation, on deliberate, willful, purposeful and fraudulent grants mismanagement and will complete the disenfranchisement of the principal investigator. This part of the new regulations must be rescinded. To me as a principal investigator whose grants were misused by his department chairman, who was deprived of financial information and First Amendment rights, this regulation is anathema.

Finally, the DHEW higher ups should stop treating universities as favored clients whose dealings are beyond criticism. One by one in the last 20 years we've been disillusioned by the wheelings and dealings of the college-and-university-educated members of our society: physicians, lawyers, businessmen, politicians. The time has come for academics to join that list. The data overwhelmingly show that research universities are not above deliberately, willfully and purposefully misusing taxpayer's money. The evidence for gross mismanagement is everywhere one looks. Let's not avoid seeing the evidence for what it is. There is mockery of peer review. There are false vouchers being submitted to the government. There is loss of academic freedom. No amount of rhetoric by university authorities should be allowed to smooth over these multiple transgressions.

The DHEW should stop considering universities as more important than the principal investigators in them. If the universities need federal money to survive, make them fight

for it openly the way they expect their scientists to. The best way to stop the fraud would be for DHEW to treat universities the way DHEW now treats its other clients who receive transfer payments: physicians, students, welfare recipients.

Fraud is fraud no matter who perpetrates it or why it's perpetrated.

Mr. FOUNTAIN. Our next witness will be Dr. Robert J. Klebe, Ph. D., associate professor at the University of Texas Medical Branch at Galveston, Tex.

Dr. Klebe is a research scientist. For the last 7 years he has received Government research grants while at Johns Hopkins University and the University of Texas Medical Branch. He has served as a member of a Federal peer review group and as a reviewer for the National Science Foundation.

Dr. Klebe will relate his experiences while a member of the department of biology at Johns Hopkins University, and will discuss management of Federal research funds by the department during the period he was employed there.

Dr. Klebe, I believe you have provided the subcommittee with a copy of your curriculum vitae. It will become part of the record.

[See pp. 104-109.]

Mr. FOUNTAIN. Please proceed with your statement.

STATEMENT OF DR. ROBERT J. KLEBE, ASSOCIATE PROFESSOR, UNIVERSITY OF TEXAS MEDICAL BRANCH; ACCOMPANIED BY JOSEPH GEBHARDT, ATTORNEY; AND LOUIS CLARK, GOVERNMENT ACCOUNTABILITY PROJECT OF THE INSTITUTE FOR POLICY STUDIES

Dr. KLEBE. I am Dr. Robert Klebe. I am an associate professor at the University of Texas Medical Branch at Galveston.

I have my attorney, Joseph Gebhardt, of the firm of Dobrovir, Oakes & Gebhardt, supported here by Funds for Constitutional Government, a charitable organization based here in Washington.

Also with me is Mr. Louis Clark, of the Government Accountability Project of the Institute for Policy Studies, also of Washington.

I would like to point out initially that I am testifying before this subcommittee as a private citizen and not as a member of the faculty of the University of Texas. I would also like to state that the grants management practices that I have observed at my department at the University of Texas are exemplary.

I will present my background at this point. I did my undergraduate training at the Johns Hopkins University between 1960 and 1965. I am indeed sorry that I must testify against the practices of a department of this institution. I received my Ph. D. in biology from Yale University in 1970 and did my post-doctoral studies at the Salk Institute from 1970 to 1972.

In 1972, I returned to Johns Hopkins as an assistant professor in the department of biology. I am presently an associate professor at the University of Texas Medical Branch in Galveston, Tex.

I am familiar with the operation of the NIH research grant program since I have held one or more grants for the last 7 years and have served in the peer review system for grants as a member of an NIH study section, as a member of several NIH site visit teams, and as a reviewer of grants from the National Science Foundation.

I was awarded an NIH grant beginning in September 1972 at the time of my arrival at Johns Hopkins. My testimony concerns the han-

dling of this and other Federal grants by the department of biology, Johns Hopkins University.

Within a short period of time after entering the department of biology, I became aware of numerous irregular practices in the financial management of grants. Initially, I felt that the irregularities I had observed were due to poor management. However, upon the issuance of the April 12, 1973, memo by the chairman, I found that these practices were departmental policy.

Inasmuch as time is short I shall request that the memo entitled "Charges Against Grants" be inserted at this point.

Mr. FOUNTAIN. Without objection, it is so ordered.

[The memorandum referred to follows:]

To: Staff
 From: S. Roseman
 Date: April 12, 1973

Memo: Charges Against Grants

I indicated at our last staff meeting that cuts in two of our three sources of funds (the training grants and the university budgets) will necessarily create immediate increased pressure on our research grants. Specifically, we must anticipate deficits in some non-faculty salaries, in providing certain central facilities with supplies and equipment, and in consumable supplies.

I intend, in every way possible, to maintain the cooperative atmosphere in this department, which I believe is critical to its existence. This spirit, the essence of this department, is more important than instituting a precise auditing and accounting system which will bill every grant for every dollar that we can wring from it. This obviously means that we will need your patience, understanding and cooperation. I would like to make the following points:

1. Research costs have never been distributed uniformly, but have been levied according to what the traffic can bear. As you all know, this philosophy has been judiciously, compassionately and efficiently conducted by three key people, Helen, Emily and Mike. They do this miserable job with great dedication and with the sole idea of helping those who do not have sufficient funds to do their work. I know that almost every one in this department truly appreciates and is deeply grateful for this thankless effort. Unfortunately, there are one or two staff members who cannot seem to comprehend the critical importance of their work, and who are adding insufferable burdens to what is already a difficult job. We simply will not tolerate this kind of back-biting. If there are any complaints about the way this office works, please have the courtesy to complain directly to me. Not only will your complaints be heard, but I assure you that we will make other arrangements for handling your grants.
2. I propose that deficits in non-faculty salaries be derived from grants by a tax across the board. As you know, we instituted a 3% tax some time ago, but this will be insufficient to make up the anticipated deficit for the coming year. I do not yet know how much money we will need for this purpose, and therefore cannot give you the estimated tax. In the long run, this may mean that your grant will be billed for part of a salary for an individual with whom you have no contact (e.g., animal caretaker), but you will make up for this apparent anomaly by not paying salaries of those whose services you do

use but whose salaries you do not pay (e.g., secretary or shop or stockroom). Again, we may anticipate that those with the largest grants will pay most of the freight, but this is precisely the philosophy I wish to preserve.

3. Consumable supplies for the central facilities. Insofar as possible, I hope that we can avoid degenerating into a department of cost accountants. I would therefore like to include the consumable supply items for the following items in the "tax": amino acid analyzers, ultracentrifuges, electron microscopes, and animal quarters. Unfortunately, the sequenator runs are excessively costly, as are the fermentor runs, and special shop costs. These will necessarily be handled by individual grants. If we eventually are forced to do so, each of the central facilities will be placed on a cost per run basis.
4. The most troublesome item is the storeroom. The difficulty here is that students and staff waste enormous amounts of material with our traditional policy of an open stockroom. This waste cannot be tolerated when times are tough. Yet I know that in a large department, appeals for economy will simply not work across the board. It may well be that the experimental program of the past two weeks of charging grants for consumable supplies will become permanent. I do not like it at all since it is likely to work against the philosophy I am trying to preserve, yet I cannot see any simple solution. Since this procedure of charges may be something that we will have to learn to live with, let me remind you of the way in which the stockroom operates:
 - a. We have always had the option of ordering consumable supplies through Central Purchasing. In fact, I encourage and urge those of you who prefer this procedure to do so since it not only relieves the burden on the stockroom, but will enable us to turn over the bookkeeping to Central Administration. If you decide to go this route, please let us know immediately so that we can make the necessary arrangements.
 - b. The University has contracts with all its vendors so that discounts are the same from a particular vendor for a specific item, regardless of whether the order is placed through us or through Central Purchasing. There is a way to get an increased discount, i.e., to give Central Purchasing time to obtain bids on supplies or equipment. We are not equipped in terms of manpower to go out for such bids ourselves.

- c. While our stockroom orders common items in bulk quantities, and therefore obtains such items more cheaply than you can purchase them as single items through Purchasing, you will not directly benefit from this reduced price. That is, you will be billed for the catalogue list price (which does not include either the bulk price or vendor discounts). We are billing you in this way for the following reasons: (a) To simplify the billing procedures in the stockroom. (b) To build up a "kitty" for Mike and Helen to use for partially defraying the costs of running the stockroom and most important, to help those who need it. If you don't like the way we do it, please order through the Purchasing Office.
- d. Mike's philosophy happens to coincide with mine. In research, the most critical and only non-expendable item is time. It is for this reason that orders from my lab have sometimes gone to companies such as Arthur H. Thomas, where there is no discount, but where delivery can be made immediately. The vendors used by this department are frequently used for the same reason. They provide service, but not always the lowest discount. Those of you concerned with obtaining the largest discount are invited to use Central Purchasing.

I will be pleased to discuss these matters with you, either individually or at a staff meeting. I do hope that you will continue to help Helen, Emily and Mike, especially in the hard times that are coming.

I well realize and appreciate the fact that much of the above is self-evident and unnecessary as far as most of you are concerned, and I apologize to you for having to write it. Unfortunately, sometimes my job (temporary) becomes that of a garbage collector, and I have to sweep up this kind of excrement.

Dr. KLEBE. In summary, the memo just presented indicates the existence of the following irregularities:

One, the department of biology operated a purchasing system outside of the university-controlled central purchasing system.

Two, in Dr. Roseman's opinion, the institution of a precise auditing and accounting system would ruin the cooperative atmosphere in the department.

Three, the memo states that in the department of biology: "Research costs have never been distributed uniformly, but have been levied according to what the traffic can bear." This statement indicates that it had been a practice of long standing to use grant funds in an irregular fashion.

Four, Dr. Roseman states categorically that grants had previously been taxed at a rate of 3 percent across the board. In his memo, Dr. Roseman proposed increasing the existing 3 percent tax on Federal grants to a higher tax rate. Dr. Roseman's only qualification was that "those with the largest grants will pay most of the freight."

Five, the memo indicated that faculty could expect to be billed for salaries of persons with whom they had no contact. My grant was charged for the salary of an individual who did not work on my grant as indicated by the account transfer statement of June 5, 1973, to Norma Berry from Helen Yates.

Mr. FOUNTAIN. Without objection, the account transfer statement will be made part of the record.

[The statement follows:]

THE JOHNS HOPKINS UNIVERSITY,
Baltimore, Md., June 5, 1973.

MERGENTHALER LABORATORY FOR BIOLOGY

To: Norma Berry.
From: Helen Yates.

Please transfer June Wieneke's salary out of P-12-6167-02 for the period 2/16/73 through 3/31/73 (\$272.92 SM) into P-12-01-02.

Mr. FOUNTAIN. These were grants which you applied for yourself?

Dr. KLEBE. Yes.

Mr. FOUNTAIN. They were approved on the basis of your application?

Dr. KLEBE. Yes.

Mr. FOUNTAIN. The funds then went to Johns Hopkins?

Dr. KLEBE. To the institution for the support, as I would understand it, of my research or that of whomever else it was awarded to originally.

Mr. FOUNTAIN. Go ahead with your statement.

Dr. KLEBE. Six, the memo indicates that competitive bidding was not and would not be carried out by the department of biology.

Seven, the memo indicates that the department stockroom would be run at a profit in order "to build up a kitty."

Following distribution of this memo to the faculty, I told Dr. Roseman that I wished to continue using the university-controlled central purchasing system. Dr. Roseman then in anger told me that I was no longer to have access to department facilities: for example, machine shop, stockroom, et cetera.

Since Dr. Roseman had clearly exceeded his authority as chairman, I hand-carried Dr. Roseman's memo to Dr. George Benton, vice president of Johns Hopkins University. Dr. Benton indicated that the university had knowledge for some time of the irregular manner in which grants were managed in the department of biology. Following my visit to Vice President Benton, Dr. Roseman circulated a second memo which reads as follows:

To: Staff.

From: S. Roseman.

Date: April 23, 1973.

My memo of April 12, 1973 did not clearly state what should be obvious. The only charges ever made against grants are bona fide, legitimate, actual charges. The proposal for a so-called "tax" is withdrawn. It was intended to retrieve a portion of legitimate expenditures from the research grants now being carried by general funds of the university.

Note, however, that the first memo of April 12, 1973, indicated that a tax was already in effect at a rate of 3 percent and that an increase in the existing tax rate was being proposed. Also note that an NIH audit, carried out in 1974, demonstrated that much of what Dr. Roseman stated or proposed in his April 12, 1973, memo was actually found to have occurred. The NIH audit findings will be presented at the end of this testimony.

On Tuesday, June 5, 1973, I caught the department taking money out of my grant to pay a salary of a secretary without my permission. Since the secretary did not provide a service to my grant, I insisted that the funds be restored to my grant.

As indicated in the account transfer statement of June 5, 1973, to Berry from Yates, the funds in question were restored to my grant.

On Monday, June 11, 1973, Dr. Roseman called me to his office to inform me that a meeting had been held by the senior faculty and that I was fired. I was told by Dr. Roseman that either I would submit my resignation or I would be terminated by June 30, 1973, or 19 days later. This action was taken against me even though Dean George Owen had extended my contract for 1 year in a letter of May 1, 1973.

[The letter referred to follows:]

[Personal]

THE JOHNS HOPKINS UNIVERSITY,
Baltimore, Md., May 1, 1973.

DR. ROBERT KLEBE,
Department of Biology and McCollum-Pratt Institute,
Homewood Campus.

DEAR DR. KLEBE: By authority of President Steven Muller and the Academic Council, I am pleased to inform you that your appointment as Assistant Professor in the Department of Biology and McCollum-Pratt Institute has been renewed for the period July 1, 1973 through June 30, 1974.

As agreed upon in consultation with your departmental chairman, your academic base salary for the period will be \$12,500.

We are looking forward to your continuation as a member of the Faculty of Arts and Sciences, and respectfully request your written acceptance of this reappointment at your earliest convenience.

Sincerely yours,

GEORGE E. OWEN, Dean.

Dr. KLEBE. An audit was made a year and a half after I left and after Dr. Roseman had been replaced by a new chairman.

That many of the irregularities found in Dr. Roseman's April 12 memo were actually in practice was revealed in an audit performed in 1974 by the Division of Management, Survey, and Review, NIH. Findings of this audit are contained in the December 30, 1974, letter from Mr. Shriver to vice president Benton of Johns Hopkins. This letter is in the possession of Mr. Gilbert Goldhammer of this subcommittee's staff. I will now list the findings of the audit performed in the department of biology, Johns Hopkins University:

One: Grant funds had been paid to individuals who did not provide a service to the grant being charged.

Two: Grant funds had been paid for supply costs not related to the grant being charged.

Three: The bookkeeping system employed was not adequate to account for salaries.

Four: In those cases where salaries could be accounted for, some grants had been charged in excess of the effort spent on the grant.

Five: In other cases where salaries could be accounted for, other grants had not been charged for salaries.

Six: An administrative assistant told the auditors that charges against grants were distributed according to "the availability of funds."

Seven: The auditors found that the biology department followed a system of "borrowing" grant funds from one grant to another.

Eight: Costs had been transferred between grants without adequate explanation.

Nine: In the letter, Mr. Shriver indicates that university officials had promised to take corrective action to, (a) change the system for distributing salary costs and (b) to stop the "borrowing" of grant funds.

Thus, Dr. Roseman's memo and the NIH audit findings indicate the existence of grant pooling in the department of biology at Johns Hopkins University. As chairman Roseman stated was departmental policy and as the NIH audit revealed:

One: Salaries were paid from grant funds for work not related to the project to which funds were awarded under the peer review system.

Two: Grant funds were "borrowed" by the principal investigators in the department of biology and grants were billed for supplies according to "availability of funds."

Three: Chairman Roseman stated that a precise accounting system was contrary to his philosophy and the NIH audit demonstrated that the bookkeeping system employed was not adequate to even account for grant funds disbursed as salaries.

In conclusion, the NIH audit indicates that grant pooling did exist in the department of biology at Johns Hopkins University. Second, Dr. Roseman's April 12 memo indicates that the irregularities found by NIH audit were not mere bookkeeping problems but were, in fact, elements of departmental policy and departmental philosophy.

I was asked to make a number of recommendations. My first recommendation would be:

RECOMMENDATION

Auditing agencies should be instructed that grant pooling and transfer of funds between grants is not permissible. I was told by Mr.

James Conn, Office of the Inspector General, HEW, that auditors are not concerned about funds from one grant being used to fund an unrelated project. Since the NIH spends about 10 percent of its funds on the grant review mechanism, auditors should see to it that the decision of the peer review groups is carried out. Federal funds should not be distributed based on the dictates of departmental politics. Unless auditors prohibit grant pooling, the peer review system will become meaningless.

NIH uses 10 percent of its funds to review grants. That amount of money is equal to the amount of money that the United Kingdom has for all of its scientific projects.

RECOMMENDATION

I would recommend the increased Federal supervision of the management of Federal grants. Without increased Federal oversight, irregularities and abuses will naturally occur.

RECOMMENDATION

I would recommend that practicing scientists be consulted, either formally or informally, concerning changes in policies regarding grant funding and accountability. I know that the vast majority of scientists are highly dedicated to their research and abhor any tampering with Federal funds. I would hope that any new regulations decided upon by this subcommittee would balance the legitimate interests of researchers with the necessity for increased Federal supervision of Federal funds.

Mr. FOUNTAIN. Mr. Goldhammer?

Mr. GOLDHAMMER. I would request that the letter by James W. Schriver, Director of the Division of Management Survey and Review, dated December 30, 1974, be inserted in the record to support the statement of this witness.

Mr. FOUNTAIN. If there is no objection, it is so ordered.

[The letter referred to follows:]

DECEMBER 30, 1974.

Dr. GEORGE S. BENTON,
Vice President for Homewood Divisions, The Johns Hopkins University, Baltimore, Md.

DEAR DR. BENTON: This office has completed an investigation of allegations made by a former research investigator in the Department of Biology, Johns Hopkins University, Baltimore, Maryland, concerning the misuse of NIH grant funds by the former chairman of the Department. Of the many allegations made, we found support for only two; namely, that (1) grant funds have been charged for the salaries of nonprofessional employees who either did not work on the grants or did not work in proportion to the amounts charged and (2) grants have been charged for costs not related to the work of the grants.

Our investigation revealed that the system used in the Department of Biology to distribute salary costs is not adequate to account for salary costs related to individual grants and that certain grants have been charged for costs not related to the work of the grants. These irregularities do not exist to any significant degree, however, and we believe that in the main the costs charged to NIH grants have been equitable and reasonable.

We reviewed the system used by the Department of Biology to charge salary costs to individual grants and found that the system is not adequate to account for salary costs related to individual grants, particularly for the salaries of non-

professional support employees. Some grants have been charged for salaries of these employees in excess of the amount of effort spent on the grants, while other grants have either not been charged for any salaries of these employees or have been charged for amounts representing less than the actual effort spent on the grants.

Certain grants have been charged for costs such as supplies not related to the work being performed on the grants. In the Department of Biology the principal investigators who have more than one grant usually do not indicate on the purchase requisition the grant to which the purchase should be charged. The distribution of these charges is made by an administrative assistant who told us that distribution is usually made according to the availability of funds. Naturally, this method of distribution gives no assurance that specific grants are charged for the cost of materials actually used on the grants. We found also that the Department follows a system of "borrowing" funds from one grant to another. For example, when the funds for supplies of one grant have been expended, the investigator is allowed to charge the cost of supplies to the grant of another investigator until he receives a new grant award at which time he reimburses the second grant by permitting the investigator of that grant to purchase supplies with his grant funds.

In addition, we noted that costs are transferred between grants without adequate explanation. We reviewed a number of these transfers selected at random and found that they appear to be proper. We believe, however, that all such transfers should be adequately explained.

We discussed these irregularities with University officials who concurred in our findings and agreed to take the necessary corrective action. They said that they would change the system for distributing salary costs to individual grants and that they would discontinue the practice of allowing investigators to "borrow" funds from one grant to another.

If you have any questions regarding this report I shall be glad to discuss them with you or your staff. Again, I would like to thank you for the courtesy shown my staff.

Sincerely yours,

JAMES W. SCHRIVER,
Director, Division of
Management Survey and Review, O.A.

Mr. FOUNTAIN. Thank you very much, Dr. Klebe, for a very informative statement. I realize it is not very pleasant to testify on matters of this kind with regard to any institution. As a matter of fact, it is not pleasant for us, as members of the subcommittee; at least it is not for me. I have never found it pleasant as chairman of this subcommittee to have to examine inefficiency, waste, extravagance, or other unacceptable practices. It always injures someone somewhere. However, that is our responsibility, and as long as I am chairman of this subcommittee we expect to carry out our duty.

Did Mr. James Conn of the Office of Inspector General at HEW give you any reason why the auditors are not concerned about funds from one grant being used to fund an unrelated project, or is that just an observation you made? We expect to have HEW witnesses tomorrow and we can discuss this with them, also.

Dr. KLEBE. He gave no reason as I can recall. I don't remember that much about that conversation.

From what I gleaned the auditors are really mainly after palpable fraud, examples of people running around in a Rolls Royce paid for by grants. That just does not exist. I think most scientists are honest.

Mr. FOUNTAIN. They are concerned about stealing primarily?

Dr. KLEBE. Right. These matters of bookkeeping are not involved. As a scientist I don't know that much about journal transfers and that sort of thing.

Mr. FOUNTAIN. I asked the question because I introduced the bill that established the Office of Inspector General in HEW. That office has been doing a very fine job, in general, with regard to getting into various areas which require investigation. In a number of areas they have already disclosed a lot of inefficiency, waste, and extravagance.

As you said, they do as we have to do. We cannot ask all the questions and get all the information we would like. They hit the high spots with their investigations and that is about as far as they go.

Dr. KLEBE. That is right.

Mr. FOUNTAIN. You have given us a very frank discussion of your experiences at Johns Hopkins. As an assistant professor there and an associate professor now at the University of Texas Medical Branch, did you also have teaching responsibilities in addition to your Government-sponsored research?

Dr. KLEBE. Yes; I did at Johns Hopkins and I do at the University of Texas Medical Branch.

Mr. FOUNTAIN. What was the extent of your teaching there?

Dr. KLEBE. At Johns Hopkins, I taught a lab course each semester. I taught two graduate courses and I gave a lecture or two in one undergraduate course.

Mr. FOUNTAIN. How often did you give that lecture?

Dr. KLEBE. Well, I gave just a few lectures each semester. However, I had 3 hours three times a week with the undergraduates in the lab course.

Mr. FOUNTAIN. Do you have any other responsibilities at the University of Texas such as special assignments?

Dr. KLEBE. Other than teaching, training my graduate students, and taking care of my lab, no.

Mr. FOUNTAIN. How much time does your lab require?

Dr. KLEBE. It requires the vast majority of my time.

Mr. FOUNTAIN. Do you find that complying with Federal regulations which require accurate and acceptable accounting records of the costs or expenditures for research places a severe burden upon you?

Dr. KLEBE. No; I don't think so. In my experience, the paperwork is handled as follows: You send out your purchase order; and once materials are received, you sign off on the receiving report. At this point, the receiving report and other documents go to the accounting department. I and other scientists have nothing to do with how the paperwork is processed by the accounting department. I believe that the matters being discussed at this hearing concern the operation of the university accounting departments, not the operation of a scientific laboratory.

Mr. FOUNTAIN. These requirements do not hamper your research efforts at all?

Dr. KLEBE. How could they? The requirements apply mainly to the accounting departments.

Mr. FOUNTAIN. Do you know how your fellow researchers at schools you have been associated with, and elsewhere, feel about accountability requirements? Have they complained to you or otherwise expressed views concerning the need for and the onus of reporting costs and keeping records of expenditures of Federal research funds?

Dr. KLEBE. I have not heard complaints along those lines. The kinds of complaints you hear regard the amount of time it takes to write grants. It takes a lot of time to write the grants.

Mr. FOUNTAIN. In other words, you have to spend a lot of time justifying the grant.

Dr. KLEBE. That is right. Then sometimes you hear complaints about the length of time it takes for a piece of equipment to be received because it goes out on bid. That is natural and it has to occur.

Really most scientists do not appreciate the problems here because scientists are not accountants. An accountant is trained in accounting principles, management practices, and computer technology. Scientists are not trained in accounting so we really rely on the accountants at our universities to do our bookwork.

I think most scientists would be absolutely shocked to find that anything improper was done with their grant funds, as I was when I was at Johns Hopkins and found grant mismanagement carried out in the Johns Hopkins biology department.

Most scientists would not believe what I heard this morning from the GAO auditing group, who stated that 35 percent of all expenditures audited in universities cannot be properly documented.

Mr. FOUNTAIN. Dr. Klebe, at page 10 of your prepared statement you indicate that on June 11, 1973, Dr. Roseman told you that you were fired. Did he give you any reason for the firing? Were there any formal charges placed against you?

Dr. KLEBE. Well, a meeting was held. I was not even told a meeting would be held. I was not allowed to go and defend myself.

I think that his main motivation in firing me was due to the fact that I did not want to go along with the way grants were managed in that department. I think that was the main reason.

However, there was one other charge I believe was brought up. There was a tissue-culture room which I managed. I threw two of his post-docs out because they brought radioactive chemicals into the room which they were not allowed to do because it was dangerous and against Federal regulations. This happened several weeks before my firing and before the June 5 transfer statement where I found they were taking money out of my grant.

I believe the main thing involved was the grant mismanagement.

Mr. FOUNTAIN. Were you called on to sign any blank sheets of paper, such as Dr. Cohen described, for expenditures of funds?

Dr. KLEBE. No. They asked me to do one thing. They asked at the very beginning for me to authorize other people in the department to sign for me. I would not sign. I reserved the right to sign my own forms.

Mr. FOUNTAIN. Did they tell you why they wanted you to do that? Was it in the interest of saving time?

Dr. KLEBE. No, it was not explained to me.

Mr. FOUNTAIN. They did, however, give you the option of resigning rather than being fired?

Dr. KLEBE. Yes.

Mr. FOUNTAIN. Did you resign or did you await the termination notice which Dr. Roseman said would be issued on June 30, 1973?

Dr. KLEBE. After this happened I went over to the dean, Dean George Owen, and by the time I got there a notice firing me was already in his hands.

Mr. FOUNTAIN. So you really didn't get a chance to resign before it came through?

Dr. KLEBE. Dean Owen said he would tear up that piece of paper if I would sign my resignation and hand it to him.

Mr. FOUNTAIN. Did you sign the resignation?

Dr. KLEBE. Yes, I signed it under those conditions.

Mr. FOUNTAIN. Do you know of any other research scientists fired after they complained about or protested the improper use of Federal research grant funds?

Dr. KLEBE. Phin Cohen. I don't know of others.

Mr. FOUNTAIN. I guess many scientists, particularly if they are successful in getting other positions, would not want to come forth and make any statement.

Dr. KLEBE. It is very, very difficult. I consulted with a number of my peers about going before a committee such as this. They all say it will hurt my career.

Nevertheless, my peers said it would be good to have a practicing scientist come before a committee like this. What they fear is more regulations that would tie them down, but from what I have seen here today I think the regulations will apply to the university accounting departments and not the research scientists.

Mr. FOUNTAIN. We have unquestionably an excessive number of regulations at the Federal level in a wide variety of program areas. However, it would appear here that perhaps the HEW Audit Agency or OMB should take another look at the requirements.

I presume your work at the university was satisfactory inasmuch as on May 1, 1973, you were notified by the dean that your appointment as assistant professor had been renewed.

Dr. KLEBE. Yes, my performance was satisfactory.

Mr. FOUNTAIN. You never received a poor or unsatisfactory performance rating prior to your separation at Johns Hopkins?

Dr. KLEBE. No, never.

Mr. FOUNTAIN. Do you know whether your final records at Johns Hopkins University show a "satisfactory" or "unsatisfactory" rating?

Dr. KLEBE. I have no knowledge.

Mr. FOUNTAIN. Can you explain the motivation of the school in taking such drastic action against you.

Dr. KLEBE. As you can see from that memo, the way grants were managed in the biology department was a matter of very high departmental policy. You can tell from Dr. Roseman's comments in that memo how strongly he felt about those who opposed the way grants were handled in that department, so I think that the action was taken against me due to my complaints about those policies.

Mr. FOUNTAIN. Do you think there are many scientists who know of irregular procedures and improper accounting, who are aware of transfers and improper use of funds according to Federal regulations, but who say nothing about it as long as they get the research done and funds which they think are adequate?

Dr. KLEBE. I really believe most scientists do not have the accounting skills necessary to know anything is going on.

Mr. FOUNTAIN. They assume——

Dr. KLEBE. That it is for research.

Mr. FOUNTAIN. Thank you very much for your forthrightness and for giving the subcommittee the benefit of your own experience.

Dr. KLEBE. Thank you very much.

Mr. GEBHARDT. It should be pointed out that Dr. Klebe is here under subpoena.

Mr. FOUNTAIN. Yes, Dr. Klebe, you also are under subpoena to be here?

Dr. KLEBE. Yes.

Mr. FOUNTAIN. Thank you for bringing this to my attention, Mr. Gebhardt. It is not too material but sometimes it is inquired about.

[Dr. Klebe's curriculum vitae follows:]

February, 1979

CURRICULUM VITAE

NAME: Robert J. Klebe

PRESENT POSITION AND ADDRESS:

Associate Professor
 Division of Human Genetics
 Department of Human Biological Chemistry and Genetics
 University of Texas Medical Branch
 Galveston, Texas 77550
 Telephone: (713) 765-2771

BIOGRAPHICAL:

Date and Place of Birth: October 26, 1943, Philadelphia, Pennsylvania
 Marital Status: Single
 Home Address: 5 Tiki Circle, Galveston, Texas 77551
 Home Telephone: (713) 938-1023

EDUCATION:

<u>Institution</u>	<u>Period</u>	<u>Degree</u>	<u>Major</u>
Johns Hopkins University	1961-65	B.A.	Biology
Yale University	1965-70	Ph.D.	Biology
Salk Institute	1970-72	Post-doct.	Biochemistry

PROFESSIONAL AND TEACHING EXPERIENCE:

<u>Institution</u>	<u>Rank</u>	<u>Department</u>	<u>Period</u>
The Johns Hopkins University	Assistant Professor	Biology	1972-73
The Univ. of Texas Medical Branch	Assistant Professor	Human Genetics	1973-77
The Univ. of Texas Medical Branch	Associate Professor	Human Genetics	1977-present

RESEARCH ACTIVITIES:

Current research interests involve (a) somatic cell genetic analysis of cell differentiation and (b) biochemistry of mammalian cell adhesion proteins.

As a Principle Investigator, these research activities are supported by:

- 1) DHEW Grant RD1 GM 19745-02, "Somatic Cell of Differentiated Phenotypes" (1972-1974), \$84,890.
- 2) DHEW Grant 7RD1 GM 21433, "Somatic Cell Genetics of Differentiated Phenotypes" (1974-76), \$71,054.
- 3) DHEW Grant GM 21433, "Somatic Cell Genetics of Differentiated Phenotypes" (1976-78), \$133,711.
- 4) DHEW Grant GM 21433, "Somatic Cell Genetics of Differentiated Phenotypes" (1979-82), \$163,067.

- 5) DHEW Grant CA 19017, "Cell Adhesion Proteins and Malignancy" (1976-79), \$132,875.
 - 6) Cystic Fibrosis Foundation Grant: "Somatic Cell Genetics of Cystic Fibrosis" (1978-80), \$36,914.
- Pending Support from NIH: Competitive Renewal of CA 19017 (1979-83), \$474,360.

UNIVERSITY COMMITTEE RESPONSIBILITIES:

Human Genetics Curriculum Committee, UTMB, 1973-Present
 Departmental Safety Committee
 University Biohazards Committee
 Departmental Travel Grant Committee (Chairman)
 Departmental Seminar Committee (Chairman)

NATIONAL COMMITTEE RESPONSIBILITIES:

Member of Special Study Section, AM Institute, for site visit of Liver Center at Albert Einstein Medical College, New York, N.Y., November 1976.

Ad hoc member of Genetics Study Section, GM Institute. (March 1977)

Member of Special Study Section, NCI, for site visit of Howard Green's group, MIT. (December 1977)

TEACHING RESPONSIBILITIES:

Medical School Curriculum
 Lecturer in Human Genetics, 1974-Present
 Laboratory instructor in the interdisciplinary laboratory of Human Genetics, 1974-Present
 Genetics and Physiology of Somatic Cell Populations, 6X22B (1975)
 Somatic Cell Genetics (1976, 1977, 1978)

MEMBERSHIP IN SCIENTIFIC SOCIETIES:

Student Editor of the Yale Journal of Biology and Medicine (1966-1970) (elected)
 American Society for the Advancement of Science (1966-Present) (elected)
 American Society of Human Genetics (elected)
 Sigma Xi (elected)

BIOGRAPHICAL LISTING:

American Men of Science

BIBLIOGRAPHY

PUBLISHED ARTICLES IN JOURNALS:

1. Klebe, R.J., T.R. Chen, and R.H. Ruddle. Controlled Production of Proliferating Somatic Cell Hybrids. *J. Cell Biol.* 45:74 (1970).
2. Olmstead, J.B., K. Carlson, R.J. Klebe, F.H. Ruddle, and J. Rovenbaum. Isolation of Microtubule Protein from Cultured Mouse Neuroblastoma Cells. *PNAS* 65:129 (1970).
3. Ruddle, R.H., V.M. Chapman, T.R. Chen, and R.J. Klebe. Linkage between Human Lactate Dehydrogenase A and B and Peptidase B. *Nature* 227:251 (1970).
4. Klebe, R.J. Genetic Mapping of a Human Regulator Gene. Thesis, Yale University. (1970).
5. Klebe, R.J., T.R. Chen, and F.H. Ruddle. Mapping of a Human Regulator Element by Somatic Cell Genetic Analysis. *PNAS* 66:1220 (1970).
6. Ruddle, F.H., V.M. Chapman, F. Ricciuti, R.J. Klebe, and P. Meera Khan. Linkage Relations of Seventeen Human Gene Loci as Determined by Man-Mouse Somatic Cell Hybrids. *Nature* 232:69 (1971).
7. Klebe, R.J. Isolation of a Collagen-Dependent Cell Attachment Factor. *Nature* 250:248 (1974).
8. Klebe, R.J. Cell Attachment to Collagen: The Requirement for Energy. *J. Cellular Physiol.* 86:231 (1975).
9. Klebe, R.J. A Simple Method for the Quantitation of Isozyme Patterns. *Biochem. Genet.* 13:805 (1975).
10. Srivastava, S.K., J. Wiktorowicz, R.J. Klebe, and Y.G. Awasthi. Studies on β -D-N-Acetyl-Hexosaminidase. Various Isozymes in Tissues of Normal, Subjects and Sandhoff's Disease Patients. *Biochem. Biophys. Acta* 394:428 (1975).
11. Naylof, S., L.L. Busby, and R.J. Klebe. Biochemical Selection Systems for Mammalian Cells: The Essential Amino Acids. *Somatic Cell Genetics* 2:93 (1976).
12. Burns, R.L., P.G. Rosenberger and R.J. Klebe. Carbohydrate Preferences of Mammalian Cells. *J. Cellular Physiol.* 88:307 (1976).
13. Kleinman, H.K., E.B. McGowan and R.J. Klebe. Localization of the cell attachment region in Types I and II Collagens. *Biochem. Biophys. Res. Comm.* 72:426 (1976).
14. Mayo, B.J., R.J. Klebe, B.J. Lankford, N.R. Morris, D.R. Barnett, and B.H. Bowman. Somatic Cell Genetics of Cystic Fibrosis. *Texas Reports on Biology and Medicine* 34:107 (1976).

15. Klebe, R.J., P. Rosenberger, S.L. Naylor, R.L. Burns, R. Novak, and H. Kleinman. Cell Attachment to Collagen: Isolation of a Cell Attachment Mutant. *Exptl. Cell Res.* 104:119 (1977).
16. Klebe, R.J., J. Hall, R. Rosenberger, and W.D. Dickey. Cell Attachment to Collagen: The Ionic Requirements. *Exptl. Cell Res.* 110:419 (1977).
17. Naylor, S.L., and R.J. Klebe. Bioautography: A General Method for the Visualization of Isozymes. *Biochem. Genetics* 15:1193 (1977).
18. Kleinman, H.K., E.B. McGowan, G.R. Martin, R.J. Klebe, P.P. Fietzek, and D.E. Woolley. Localization of the Binding Site for Cell Attachment in the $\alpha_1(I)$ Chain of Collagen. *J. Biol. Chem.* 253:5642 (1978).
19. Kleinman, H.K., E.B. McGowan, G.R. Martin, and R.J. Klebe. Cell Attachment Protein (c-CAP) Binding to Collagen: Effect of Chemical Modifications. *Ann. N.Y. Acad. Sci.* 312:436 (1978).
20. Dickey, W.D., J.R. Hall, C.M. Seals, and R.J. Klebe. Bioautography of Serum and Cell Derived Cell Attachment Proteins. *Ann. N.Y. Acad. Sci.* 312:423 (1978).
21. Klebe, R.J., J.R. Hall, S.L. Naylor, and W.D. Dickey. Bioautography of Cell Attachment Proteins. *Exptl. Cell Res.* 115:73 (1978).
22. Naylor, S.L., R.J. Klebe, and T.B. Shows. Argininosuccinic Aciduria: Assignment of the Argininosuccinate Lyase Gene to the pter + q 22 Region of Human Chromosome 7 Using Bioautography. *PNAS* 75:6159 (1978).
23. Naylor, S.L., T.B. Shows, and R.J. Klebe. Bioautographic Visualization of Aminoacylase-1: Assignment of the Structural Gene ACY-1 to Chromosome 3 in Man. *Somatic Cell Genetics* 5:11 (1979).

PUBLISHED ARTICLES IN BOOKS:

Klebe, R.J., T.R. Chen, and F.H. Ruddle. Mapping of a Human Regulator Element by Somatic Cell Genetic Analysis. In Readings in Mammalian Cell Culture (ed. R. Pollack), Cold Spring Harbor Laboratory Press (1973).

Klebe, R.J., and W.D. Dickey. The Role of Collagen in Cell Adhesion (A Review) in Collagen-Platelet Interaction (edited by H. Gastpar). (F.K. Schattauer Verlag: Stuttgart) (1978).

ABSTRACTS:

1. Klebe, R.J., and F.H. Ruddle. Neuroblastoma: Cell Culture Analysis of a Differentiating Stem Cell System. *J. Cell Biol.* 43:69a (1969).
2. Awasthi, Y.L., R.J. Klebe, J. Wiktorowicz, and S.K. Srivastava. Studies on β -D-N-Acetyl Hexosaminidase: Various Isozymes in Tissues. *Fed. Proc.* 34:676 (1975).
3. Mayo, B.J., R.J. Klebe, B.J. Lankford, N. Morris, D.R. Barnett, and B.H. Bowman. Somatic Cell Genetic Analysis of Cystic Fibrosis. *Am. J. Human Genetics* 27:65a (1975).
4. Burns, R.L., P. Rosenberger, and R.J. Klebe. Biochemical Selection Systems Involving Carbohydrate Utilization. *J. Cell Biol.* 67:49a (1975).
5. Kleinman, H.K., R.J. Klebe, E.B. McGowin, and G.M. Martin. Cell Attachment to Collagen: Binding of Cell Attachment Protein to Collagens and Their Cyanogen Bromide Peptides. *J. Cell Biol.* 70:83a (1976).
6. Naylor, S.L., T.B. Shows, and R.J. Klebe. Bioautography: A New Method for the Visualization of Isozymes in Gene Mapping Studies. *J. Cell Biol.* 75:379a (1977).
7. Naylor, S.L., R.J. Klebe, and T.B. Shows. Genetics of Amino Acid Metabolism Using Bioautography and Cell Hybridization: A Strategy for Dissecting the Aminoacidopathies. *Am. J. Human Genetics* 30:133a (1978).
8. Naylor, S.L., R.J. Klebe, and T.B. Shows. Gene Mapping of Biochemically Selectable Enzymes Using Bioautography. *J. Cell Biol.* 79:398a (1978).
9. Klebe, R.J., and W.D. Dickey. Bioautographic Analysis of Cell and Serum Derived Fibronectins. *J. Cell Biol.* 79:58a (1978).

Mr. FOUNTAIN. We had not prepared to reach Mr. Stepnick until tomorrow. However, I understand that he is here. We will not question him today, but we can take his prepared statement. That would help us make more progress in our hearings.

I want to state before we start, Mr. Stepnick, that I have received letters relating to the hearings from President Derek C. Bok of Harvard University and President Steven Muller of Johns Hopkins University. Dr. Muller's letter will be made part of the hearing record.

Dr. Bok indicates in his letter that he reserves the right to submit a statement for the record at a later date. The record will be kept open for several weeks.

I am also placing into the record an August 6 letter from Dr. Robert J. Klebe responding to Dr. Muller's letter.

[The letters referred to follow:]

The Johns Hopkins University



Steven Muller, President

July 16, 1979

The Honorable L. H. Fountain
Chairman
Intergovernmental Relations and
Human Resources Subcommittee of
the Committee on Government Operations
Rayburn House Office Building, Room B-372
Washington, D. C. 20515

Dear Mr. Chairman:

Please let me respond to your letter of July 9, received here only on July 13, advising me that in hearings scheduled for July 17, 18 and 19 by the Intergovernmental Relations and Human Resources Subcommittee of the Committee on Government Operations and dealing with a review of HEW's auditing of colleges and universities and the accountability of these institutions, it is anticipated that the use of federal research funds by The Johns Hopkins University will be discussed.

I regret that on this short notice it is not possible for me to appear before you on behalf of the University. Therefore, I respond with appreciation to the opportunity you suggest of submitting this written statement for the hearing record and would be most grateful if you would read this letter to your colleagues at the appropriate time during the hearings.

The assumption on which I write is that testimony will be offered to you by Dr. Robert J. Klebe, who once served for seventeen months as an assistant professor in the Department of Biology of the Faculty of Arts and Sciences of this University. On this assumption, please let me offer a few comments in anticipation of the nature of Dr. Klebe's testimony and respectfully request that the University be allowed to reserve the right to respond further and in greater detail after Dr. Klebe's testimony has been taken, if the Committee so wishes.

Let me note first that charges against The Johns Hopkins University by Dr. Klebe are not likely to be new, because he left this institution in November 1973 and has been voicing his concerns repeatedly on different occasions over the past five years and more. Without wishing to be derogatory to Dr. Klebe in any way, please let me also advise you that there is reason to believe that he is aggrieved at Johns Hopkins because his resignation from the faculty was requested unanimously by the senior faculty of his Department at the end of his first year here.

However, the charges which he has made publicly before and which we presume

Gorham Hall
Baltimore, Maryland 21218
(301) 338-8068

he will offer at the hearings are of sufficient importance that the following facts concerning them should also prove useful to you and the members and staff of the Subcommittee:

1. Dr. Klebe's allegations resulted almost immediately in an audit and investigation of management and accountability within the Biology Department of this University on the part of HEW/NIH auditors under the direction of Mr. James W. Shriver.
2. In his post-audit letter to the University dated 30 December 1974 Mr. Shriver did cite certain problems, and immediately corrective action was taken by this institution. The conclusion of the auditors was that "of the many allegations made, we found support for only two..." Mr. Shriver's letter states further that "...these irregularities do not exist to any significant degree, however, and we believe that in the main the costs charged to NIH grants have been equitable and reasonable."
3. During the HEW/NIH audit and investigation, members of the investigating team advised the administration of The Johns Hopkins University that they found the records and record-keeping in the Department to be unusually fine; and that this was the first such investigation conducted by them as a result of which no request to reimburse NIH for inappropriate expenditure of grant funds was expected.
4. Prompt action taken to correct the two irregularities noted is indicated in the attached letter from then Vice President George S. Benton to Mr. Shriver dated 6 January 1975.

Mr. Chairman, The Johns Hopkins University takes pride in the accomplishments and integrity of its faculty and researchers over more than a century. We believe our record of service to and cooperation with the federal government to be outstanding. We further believe that both the handling of government funds by our Department of Biology and our response to Dr. Klebe's allegations have been correct, prompt, and fully within the bounds of propriety and reasonable expectation. I appreciate the opportunity to write to you on this subject and repeat our willingness to provide additional information should you so desire.

Sincerely,

Steven Miller

SM/jwb

5 Tiki Circle
Galveston, Texas 77551
August 6, 1979

The Honorable L. H. Fountain
Chairman
Intergovernmental Relations and
Human Resources Subcommittee of
the Committee on Government Operations
Rayburn House Office Building, Room B-372
Washington, D. C. 20515

Dear Mr. Chairman:

I take this opportunity to respond to the letter from Johns Hopkins University President Steven Muller which concerns my testimony before your Subcommittee.

Initially, I would like to say as an alumnus of Johns Hopkins that I was pleased to find in President Muller's letter that the Johns Hopkins Administration took prompt action to correct the grant mismanagement problems that existed in the Biology Department. I believe that this corrective action was beneficial for biological research and in the public interest.

I will now respond to questions arising from President Muller's letter. While I may repeat areas of my testimony, I believe that my response will aid in clarifying the record.

First, I should note that my appearance under subpoena before this Subcommittee was my first action in this matter since 1974 and my only public response relating to my experiences at Johns Hopkins. I did bring the grant mismanagement of the Johns Hopkins Biology Department to the attention of the appropriate federal Agencies in 1973 and 1974; and that was proper and in the public interest.

In reply to President Muller's letter, I will again restate my testimony concerning my forced resignation. On May 1, 1973, I was issued a letter from Dean George Owen stating that I had been reappointed for an additional year. On June 11, 1973 (six days after I had objected to funds being withdrawn from my grant), I was informed that my resignation was required or I would be terminated by June 30, 1973. It should be pointed out that the performance of my research and teaching duties was not an issue in my dismissal and it should also be noted that President Muller's letter does not provide a specific charge which could justify the drastic action that was taken against me. As is indicated by my testimony and by Dr. Roseman's April 12 memo, my objection to the mismanagement of grants represented a major breach of departmental policy. As for the unanimity of the senior faculty in requesting my resignation, I need only point out that it is well known that a participant in the

meeting, Professor Alvin Nason, apologized to me for being present at the meeting and other participants expressed hope that the verdict would be reversed. I will also restate my testimony that I was not informed that a meeting was to be held concerning the termination of my employment and that I was not permitted to defend myself at this meeting. I feel that I was denied due process and, thus, I feel that the meeting was unfair.

In regard to the Schriver audit findings, I wish to restate the facts brought out by my testimony and by Mr. Schriver's letter of December 30, 1974. In terms of chronology, I should state initially that Mr. Schriver's audit occurred in the last quarter of 1974; I had left Johns Hopkins in the third quarter of 1973; and the Biology Department was under the management of a new chairman who was chairman-elect within two weeks of my forced resignation in June, 1973. Thus, Mr. Schriver's audit occurred over a year after I had left Baltimore and took place about a year and a half after Dr. Roseman had been replaced as Chairman.

The findings of the Schriver audit are found in the letter of December 30, 1974 which is a part of the record and a portion of my testimony. Far from finding an unusually fine records system or only two irregularities, the Schriver audit revealed eight areas of grant mismanagement; namely

1. Grant funds had been paid to individuals who did not provide a service to the grant being charged.
2. Grant funds had been paid for supply costs not related to the grant being charged.
3. The bookkeeping system employed was not adequate to account for salaries.
4. In those cases where salaries could be accounted for, some grants had been charged in excess of the effort spent on the grant.
5. In other cases where salaries could be accounted for, other grants had not been charged for salaries.
6. An administrative assistant told the auditors that charges against grants were distributed according to "the availability of funds."
7. The auditors found that the Biology Department followed a system of "borrowing" grant funds from one grant to another.
- and 8. Costs had been transferred between grants without adequate explanation.

In addition, former Chairman Roseman stated in his own April 12 memo that the following additional areas of grant mismanagement existed in the Biology Department:

1. Federal grants were taxed at a rate of 3%
2. The stockroom was to be run at a profit "to build up a 'kitty'".
3. Competitive bidding was not and would not be carried out.
4. Grants would be charged for salaries of persons who did not provide a service to the grant being charged.
- and 5. In Dr. Roseman's opinion, a precise auditing and accounting system would ruin the cooperative atmosphere in the department.

The Schriver audit findings clearly indicate that funds ear-marked for one project were expended on unrelated projects. That the auditors did not require Johns Hopkins to reimburse the NIH for funds expended in this irregular manner is, I believe, one of the major issues to be addressed by these hearings. As stated in the announcement of these hearings, one purpose of the hearings is to "examine the quality and effectiveness of Federal audits for assuring that such funds (grants) are expended for their intended purposes."

Finally, my testimony demonstrates that university scientists seriously endanger their careers by even raising questions quietly about grant mismanagement. I hope my testimony is helpful in eliminating grant mismanagement and in providing scientists with the academic freedom to protest such mismanagement.

Sincerely yours,

Robert J. Klebe

Robert J. Klebe

Mr. FOUNTAIN. If it becomes necessary as a result of the inclusion of Dr. Muller's letter or Harvard's later statement, if submitted, for the subcommittee to hold further hearings to give these universities an opportunity to testify, we will notify them.

[Harvard University submitted a statement for the record. See appendix.]

Mr. FOUNTAIN. Our next witness will be Mr. Edward W. Stepnick, Assistant Inspector General for Auditing, Department of Health, Education, and Welfare.

Mr. Stepnick's testimony will relate to HEW audits of educational institutions, the nature of the audits, and, I assume, the difficulties encountered by the auditors, and the steps being taken or planned to ameliorate the problems.

Mr. Stepnick, we will be delighted to hear from you at this time.

STATEMENT OF EDWARD W. STEPNIK, ASSOCIATE INSPECTOR GENERAL FOR AUDITING, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. STEPNIK. Thank you. I appreciate the opportunity to appear here today to discuss our audit activities at colleges and universities relating to Federal research grants and contracts. My statement will deal primarily with:

The role of the HEW Audit Agency and its work in this area over the past several years;

The kinds of problems we have reported on, and their significance.

I will also outline the measures HEW is taking to resolve the problems. Mr. Henry Kirschenmann, Director of the Office of Grants and Contract Financial Management, will appear to discuss these measures more fully.

The HEW Audit Agency, established in 1965, is HEW's central organization responsible for audits of all of the Department's programs, functions, and activities, including those conducted through grantees and contractors. In total, there are about 51,000 entities accountable to HEW which comprise the Audit Agency's workload.

In broad terms, the audits are designed to, one, consider whether Department operations are conducted economically and efficiently and, two, provide a reasonable degree of assurance that funds are expended properly and for the purpose for which appropriated.

Since March 1977, the agency has been organizationally located within the Office of Inspector General. We have a headquarters staff in Washington, D.C., and field staff at each of the 10 Department regional offices, with 42 branch offices. All agency staff, regardless of location, report to the Assistant Inspector General for Auditing, who in turn is responsible to the Inspector General for the direction and performance of the audit function. As of June 30, 1979, the full-time staff totaled 995 consisting of 924 professionals and 71 administrative and clerical personnel.

The entire Federal Government expends about \$5.4 billion annually in grants and contracts to about 2,500 college and universities. \$3.9 billion of this is awarded by HEW in support of academic science, research and development, fellowship and training grants, facilities

and equipment for instruction, and general support for science. Within HEW, most of the awards are by the Public Health Service and the Office of Education. It is estimated that 200 of the 2,500 schools receive over 70 percent of the funds awarded.

Considering all the entities that receive funds from the Department, colleges and universities comprise about 5 percent. Currently, about 180 staff years—which is 20 percent of the total direct audit effort—are applied to this area. In terms of dollars, this represents \$6 million of the Audit Agency's total annual cost of \$32.8 million.

In 1968, OMB, formerly the Bureau of the Budget, established a policy that a single Federal agency will be responsible for the conduct of indirect cost negotiations and audits for all Federal agencies at a single educational institution. This policy is expressed in OMB Circular A-88.

Because HEW was the primary Federal source of university contracts and grants, the HEW Audit Agency became the single agency responsible for all Federal audit services at about 94 percent of the Nation's 2,500 colleges and universities. The remaining schools were made subject to audit by the Defense Contract Audit Agency, the Department of the Interior, or the National Science Foundation.

Because of a shortfall between the total audit workload and available audit resources, we have never been able to implement a firm time cycle for auditing institutions of higher education—that is, each school every 2 years, 3 years, et cetera. Instead, we select entities to be audited on the basis of such factors as experience as to which audits are consistently the most productive in terms of dollars saved, the magnitude and relative significance of problems previously disclosed, the need for followup review, total Federal dollars involved, and the needs of awarding agencies.

Under this approach we have concentrated our efforts on those institutions that receive large amounts of Federal funds, and as a result many schools—especially the smaller ones—have not been audited for many years. While our audit cycles are longer than they should be, we believe our methods provide reasonably effective dollar audit coverage. For example, during fiscal year 1978 about \$5.4 billion was awarded to universities and colleges, and fiscal year 1978 audit reports covered \$1.5 billion.

Audits we perform are subject to professional auditing standards. These include in part (i) "Statements of Auditing Standards" issued by the American Institute of Certified Public Accountants and (ii) "Standards for Audit of Governmental Organizations, Programs, Activities and Functions" issued by the General Accounting Office and adopted by Federal executive departments and agencies through OMB Circular A-73. Additional guidelines to field auditors are provided in policy and procedures handbooks and other instructions.

For the most part, our periodic audits at colleges and universities involve reviewing compliance with Federal grant/contract requirements within the context of an evaluation of the financial and management systems used by the schools to control federally funded activities. The auditor reviews accountability of the institution by, one, evaluating the quality of management systems; two, testing sample transactions to see if systems are working as intended; three, determining the

adverse effects of any weaknesses; and, four, making recommendations for corrective action.

OMB Circular A-21, formerly Federal Management Circular 73-8, provides principles for determining the costs applicable to research and development, training and other sponsored work performed by colleges and universities under grants, contracts, and other agreements with the Federal Government. These principles are the major criteria available to the auditors for evaluating the acceptability of institutional records and the allowability and allocability of costs claimed for reimbursement.

Before discussing our audit findings, I would like to comment briefly on recent GAO criticisms relating to the quality of our university audits. Among other things, GAO said that some of our audits lacked some of the characteristics of a quality audit with respect to such matters as audit scope, sufficiency of evidence, completeness of reporting, and supervision of staff.

We agree with GAO that improvements can and should be made in these areas and we have instructed our regional staffs accordingly. We strive to achieve the highest professional standards and are appreciative of GAO's constructive suggestions. It is our view, however, that the weaknesses are not so serious or widespread as to in any way detract from the generally acceptable quality of the audit work we perform.

Throughout the years our audits have consistently disclosed major problems in five areas which suggest that adequate recordkeeping and cost controls with respect to Federal funds are a widespread problem at colleges and universities. Too often we have concluded that we do not have a sufficient degree of assurance that Federal funds have been used for the purposes that they were provided for.

The five problem areas are:

Inadequate salary and wage documentation.

Improper or inadequately documented cost transfers.

Consultant costs undocumented.

Weak cash management system.

Poor procedures for acquisition, control, and accountability for equipment and supplies.

Most of the funds provided under cost reimbursable agreements are expended on the salaries and wages of institutional personnel and related fringe benefits and indirect costs, and we have focused the thrust of our audit efforts on reviews of systems of accounting for salaries and wages. The toughest and longest-standing problem revealed by our audits has been lack of reliable documentation to support salaries and wages charged to Federal grants and contracts. This is consistent with GAO's conclusion expressed in their August 1978 report on federally sponsored research at educational institutions. Therefore, I would like to comment principally on our findings relating to inadequate payroll record systems at the institutions.

As mentioned earlier, the allowability of costs incurred under Federal grants and contracts to educational institutions is governed by the provisions of OMB Circular A-21, formerly FMC 73-8. For many years the provisions of A-21 dealing with accounting for personal services under Federal agreements have been a source of major dissatisfaction by a large part of the academic community.

Compliance with the requirements, which have been changed several times since their adoption in 1958, has consistently been found to be nonexistent or inadequate at about 70 percent of the major colleges and universities we audited.

During the periods of our audits, these requirements have been that direct cost charges for the personal service of professorial and professional staff will be based on institutional payroll systems which must be supported by either:

An adequate appointment and workload distribution system accompanied by monthly reviews performed by responsible officials and reports of any significant changes in workload distribution of each professor or professional staff member; or

A monthly after-the-fact certification system which will require the individual investigators, deans, departmental chairmen, or supervisors, having firsthand knowledge of the services performed on each project, to report the distribution of effort.

Reported changes in effort must be incorporated during the accounting period into the accounting records. Direct charges for nonprofessionals must be supported by time and attendance records and payroll distribution records. Budget estimates on a monthly, quarterly, semester, or yearly basis do not qualify as support for charges to federally sponsored projects and should not be used unless confirmed after the fact.

Our audits have frequently found that these payroll distribution and support systems had one or more of the following major systems deficiencies:

Certification of effort or reviews of workload distributions were not documented.

Quarterly rather than monthly certification or review systems were maintained.

Controls were not sufficient to assure that all certifications or reviews were performed.

Certifications or review results were pro forma confirmations or preestablished budget allocations.

Certification or review results were inconsistent with actual efforts or required accounting changes which were not made.

In many cases, we also found that salary charges were later transferred to other accounts without adequate supporting documentation to show that the original charges were in error. We questioned many inadequately supported cost transfers because they:

Eliminated cost overruns in the Federal projects to which they were originally charged.

Occurred after significant time lapses.

Contradicted prior certification that the original charges were correct.

The professorial and professional staff of an educational institution performs both direct and indirect functional activities. These include:

Externally funded effort on sponsored projects.

Nonfunded effort on sponsored projects, that is, cost sharing.

Teaching duties.

Patient care.

Administration of academic departments.

Provision of student services such as counseling.

OMB A-21 includes several different requirements for supporting charges for the various types of faculty effort. Here I refer to the A-21 Circular which existed during the period of our audit and not the most recent revision. Monthly certifications of actual effort expended or monthly reviews of workload distribution are required to support direct charges to Federal projects. For indirect charges, annual surveys can be made to determine the amounts allowable. Informal records are permitted to support cost sharing.

As a result of this fragmented recordkeeping approach, it is not uncommon to find, at one institution, numerous sets of different uncoordinated systems or records purporting to identify faculty and staff involvement in the various types of activity. These records include the payroll certifications of direct charges to sponsored projects; the annual survey forms which support the school's indirect cost proposals; another set of forms supporting its hospital's cost proposal; individual certifications of cost-shared effort located in project files scattered throughout the institution; billings to medicare and medicaid for physicians' services; faculty assignments to teach various courses; and reports prepared for State legislatures to document the amount of effort devoted to teaching duties. Federal guidelines do not require—and institutional systems seldom provide for—reconciling these diverse systems to assure consistency and prevent overallocations of costs to Federal projects.

Major systems deficiencies adversely affect both, one, the auditor's ability to verify costs claimed under cost-reimbursable grants and contracts and, two, the awarding agencies' ability to use the audit reports in settling the contracts and grants. When major systems deficiencies exist to an extent that the records are unauditable, the HEW Audit Agency has no choice but to set aside or disclaim an opinion on all of the costs. In fiscal year 1978, such "set-asides" amounted to \$86.5 million. This does not mean that all these costs were improper; it simply means they could not be verified because the systems were deficient in relation to existing regulations.

However, we try to arrive at amounts to be recovered by the Government based on such test checks of records and transactions as are possible. For example, audits have frequently disclosed that transfers of cost between projects were improper or inadequately documented. In many instances, there were no explanations or supporting documentation that justified the accounting entries which adjusted costs between projects. In others, information in the files revealed that the transfers were made to avoid cost overruns. Other examples revealed that transfers were made very late—sometimes as much as 18 months to 2 years after the transaction was originally recorded. In fiscal year 1978 we recommended that \$3.5 million of such items be recovered.

Our findings and recommendations are included in individual reports on each educational institution audited. The audit reports typically recommend that:

The institution implement or revise its system or certification or review procedures to bring them into compliance with Federal requirements.

The institution refund any unallowable expenditures which we were able to identify.

The cognizant operating agency adjudicate the allowability of charges on which we were not able to express an opinion.

Mr. Chairman, let me recite an example of an audit finding relating to the salary and wage cost problem that appeared in an audit report on a major university.

The university distributed personal services costs to its various activities, including Federal grants and contracts, on the basis of budget estimates and fund availability. Although the university maintained biweekly payroll certifications attesting that all personal services costs were charged to the proper activities, we found that these statements often had little or no validity.

We found that the certifications merely ratified the budget estimates and, in many instances, did not reflect the employee's actual effort. The university's quarterly activity reports clearly showed many significant variances between the personal services costs charged to various activities and the effort actually devoted to those activities.

We analyzed the activity reports of 1,087 university employees whose personal services costs were charged in part or in whole to Federal grants and contracts. Our analysis showed that the effort reported as devoted to the projects by 351, or 32 percent, of the 1,087 employees was not sufficient to justify the university's charges. Moreover, 202 of the 351 employees were reported as having devoted no effort whatsoever to the projects.

In total, we identified approximately \$1 million of unallowable costs charged to Federal grants and contracts for the salaries, wages, fringe benefits, and related indirect costs of these employees. These unallowable charges occurred because the university had not established adequate controls to insure that its distribution of employees' personal services costs was correlated to the distribution of the employees' actual effort.

The university, however, did not accept our analysis of unallowable charges and provided additional information based on records which, in our opinion, do not comply with A-21. Although our audit report was issued in 1977, it has not yet been finally resolved.

In summary, it is virtually impossible to resolve salary and related charges when large universities do not maintain or properly supervise the after-the-fact time and efforts reports required by Government-wide standards. These reports are designed to show what portion of researchers' time was actually spent on federally supported projects and without reliable documentation we cannot attest to the cost of effort actually devoted to research, particularly where individuals are working on many projects only some of which are supposed to be federally supported. We recognize this situation results in an "accountability gap" and will continue to try to develop, as GAO suggests, "extended" audit procedures to compensate for the problem. But the real solution lies in the maintenance by the universities of records that can be clearly shown as being in accord with appropriate Federal requirements.

As I mentioned earlier, the issues relating to time and effort reporting systems are longstanding and tough problems. In the early part of 1966, the Audit Agency reported to the Secretary that 28 of the 68 audit reports on research grants issued from November 1, 1965, to

January 31, 1966, disclosed that the institutions failed to maintain the time or efforts reports required at that time to support salary and wage charges to Federal grants and contracts.

Soon thereafter, a Federal task force studied this question and issued a report in February 1968. Several recommendations of the task force were adopted by the Federal Government in its June 1, 1968, revision to Circular A-21. The revisions established the salary and wage requirement which gave some relief from the prior requirements which were widely opposed by the academic community. It was believed that, since the new proposals included many of the suggestions made by the academic community, adequate compliance would follow.

During the succeeding years, the Audit Agency and other affected parts of the Department recognized that the situation had not improved. In July 1975 the Department's Division of Financial Management Standards and Procedures made a series of recommendations to OMB for reforming the requirements. The proposal was presented to the academic community for comments. After consideration of the comments, a revised proposal was submitted to OMB in January 1977. OMB revised the circular on March 6, 1979, taking into consideration the Department's recommendations.

Secretary Califano in a February 14, 1978 memo, indicated his concern about this matter. I quote:

The continuing and widespread existence of these accounting deficiencies raises questions about the ability of institutions and the Federal Government to manage and account for grant and contract funds in a responsible manner.

The Secretary's directive contained a wide range of reforms which highlighted the need for greater involvement and direction from the Department in resolving the audit findings and in working with the institutions to correct their deficiencies in a positive, timely fashion. I will briefly outline these measures. Mr. Kirschenmann will discuss them more fully.

One: The HEW Office of Grants and Procurements shall assume responsibility for resolving audit findings concerning grantee or contractor systems and recordkeeping deficiencies, the effect of which cuts across agency lines. This responsibility formerly vested with the awarding agencies.

Two: The HEW Audit Agency shall establish an "early review" service that will offer advance consultation to colleges and universities on their proposed changes in accounting systems where such changes are necessary to meet revised Federal standards.

Three: There shall be established a board consisting of the heads of agencies, the Inspector General, the Assistant Secretary for Management and Budget, and the General Counsel, to review and decide on actions to be taken on recommendations regarding sanctions or other appropriate actions against an institution which fails to correct serious systems or recordkeeping deficiencies in a timely manner; and

Four: The Office of General Counsel shall take the lead in developing a departmental regulation providing for the disqualification/debarment of individuals and organizations as eligible applicants for grant and other assistance awards where necessary to protect the interest of the Department from willful and material violation of

regulations and policies, criminal acts, or other causes which seriously reflect on the individual or organization's integrity or ability to act responsibly.

These reforms are important and, in my judgment as a professional auditor, long overdue. But an important prerequisite for a successful outcome is a better "meeting of the minds" between the Government and the universities on fundamental rules of accountability. I sincerely hope these hearings will contribute toward that objective.

Mr. FOUNTAIN. Thank you very much, Mr. Stepnick, for a very helpful statement.

-We will question you with regard to your statement when our hearings resume tomorrow. I have only one question which comes to mind at this time. I will ask it in a different form tomorrow.

If I receive, as an institution, \$4, \$5, or \$6 million from the Federal Government, or whatever the sum might be, the testimony we have received thus far would indicate, assuming that I am the institution, that in such case, or in any other case, the hierarchy of an institution would have no way of knowing whether or not these \$4, \$5, or \$6 million were wisely, honestly, efficiently, and economically spent, or whether they were spent for the purpose they were intended. Is that correct? I would want to know, I think, how the money was spent after I got it or after the grant recipients turned it over to me as an institution.

Mr. STEPKNICK. If I were a member of the hierarchy I would not regard, based on our audit experience, the financial management systems we generally see as effective in accomplishing the purpose you indicate.

Mr. FOUNTAIN. Thank you very much.

The subcommittee will stand adjourned until tomorrow at 9:30 in this same room.

[Whereupon, at 12:45 p.m., the subcommittee adjourned, to reconvene at 9:30 a.m., Wednesday, July 18, 1979.]

20

ACCOUNTABILITY OF EDUCATIONAL INSTITUTIONS FOR FEDERAL FUNDS AND THE EFFECTIVENESS OF FEDERAL AUDITS

WEDNESDAY, JULY 18, 1979

HOUSE OF REPRESENTATIVES,
INTERGOVERNMENTAL RELATIONS
AND HUMAN RESOURCES SUBCOMMITTEE
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2203, Rayburn House Office Building, Hon. L. H. Fountain (chairman of the subcommittee) presiding.

Present: Representatives L. H. Fountain, John W. Wydler, Clarence J. Brown, and Olympia J. Snowe.

Also present: Dr. Delphis C. Goldberg, professional staff member; Gilbert S. Goldhammer, consultant; and Thomas Houston, minority professional staff, Committee on Government Operations.

Mr. FOUNTAIN. The subcommittee will be in order.

There are all sorts of meetings on Capitol Hill this morning, detaining subcommittee members. However, in the interest of time we will get started.

Yesterday, when I recessed the hearings, we had heard the statement of Mr. Edward Stepnick, Assistant Inspector General for Auditing of the Department of Health, Education, and Welfare. Before we question Mr. Stepnick, it would be well to receive the testimony of Mr. Henry Kirschenmann, Director of the Office of Grant and Contract Financial Management. I understand Mr. Kirschenmann has responsibilities in the area of resolving audit findings and improving university accounting systems. After Mr. Kirschenmann presents his prepared statement, we will question both Mr. Stepnick and Mr. Kirschenmann at the same time.

Mr. Kirschenmann, we will be pleased to hear from you at this time.

STATEMENT OF HENRY G. KIRSCHENMANN, JR., DIRECTOR, OFFICE OF GRANT AND CONTRACT FINANCIAL MANAGEMENT, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY MATTHIAS LASKER, OFFICE OF THE SECRETARY AND DIRECTOR OF THE DIVISION OF GRANTS POLICY AND REGULATIONS DEVELOPMENT

Mr. KIRSCHENMANN. Thank you.

I have with me on my right Matthias Lasker, Director of the Division of Grants Policy and Regulations Development. He is here to respond to questions you might have.

(125)

129

Mr. Chairman and members of the subcommittee, like our colleagues from the Audit Agency, we also appreciate the opportunity to appear here today. My testimony will deal with actions the Department has taken to resolve audit reports and our efforts to bring about improvements in the accounting operations of universities.

Mr. FOUNTAIN. Before you proceed further, let the record show that a quorum is present for the purpose of taking testimony.

Mr. KIRSCHENMANN. As Mr. Stepnick has stated, problems of accountability at universities center primarily in five areas: salary and wage documentation; improper and undocumented cost transfers; undocumented consultant charges; weak cash management systems; and acquisition, control, and accountability for equipment and supplies.

As has also been noted, these problems have been with us for many years. The problems exist partly because of ambiguous language previously in the Federal cost principles, OMB Circular A-21; partly because universities associate managerial and accounting discipline with an erosion of academic freedom, which stems in large measure, in my opinion, from a misunderstanding by university faculty of the purpose of accounting records; partly to the fact that universities do not maintain cost accounting systems; partly to the complexity of university operations; and partly to the fact that universities are subject to differing accountability requirements of their different funding sources, some of which are inconsistent or contradictory.

We have been able to find no quick solution to these problems. We submitted a series of recommendations to substantially revise OMB's cost principles for colleges and universities, Circular A-21, to improve the accounting for salaries and wages, indirect costs, equipment, and a number of other areas. Our recommendations were supported by GAO. OMB used these recommendations as the primary basis of its latest revision to the circular dated March 6, 1979.

Mr. FOUNTAIN. May I interrupt you at this point? Do you know who prepares these circulars over at OMB?

Mr. KIRSCHENMANN. It is under Mr. Cutter's office. John Lordan is the individual.

Mr. FOUNTAIN. I notice you said "ambiguous language" in Federal cost principles in OMB Circular A-21. I am wondering why they prepare circulars with ambiguous language.

Go right ahead with your statement.

Mr. KIRSCHENMANN. One of the important recommendation adopted in the revised OMB circular is a requirement for 100 percent accounting of the time or effort of university staff whose compensation is charged in whole or in part to Federal awards, and for a certification of that accounting by either the individual whose compensation is charged or a responsible official having firsthand knowledge of the work performed by that individual.

Another important addition is a requirement that use charges or depreciation for equipment be supported by property records and that physical inventories be taken at least every 2 years to establish that the assets exist, and are usable, used, and needed.

A third general, but important, requirement is a statement that the accounting practices of colleges and universities must support the accumulation of costs as required by the principles and must provide for adequate documentation to support costs charged to Federal awards.

The revised circular will become effective on October 1, 1979, and must be implemented by universities beginning with their first fiscal year after that date; for most institutions this means July 1, 1980. We are currently writing our interpretation of the key features of the revision. It is our plan to submit these interpretations to OMB for concurrence or clarification and then publish them for the use of Federal and university personnel. It is our hope that the interpretations will result in the uniform and fair application of the circular's provisions. If the universities apply the circular in good faith, the problems which have been so long with us could be significantly alleviated. We are prepared to work with them.

Mr. Stepnick noted that responsibility for resolving audit findings concerning institutional recordkeeping and accounting systems, the effect of which cut across agency lines, has been transferred to the Office of Grant and Contract Financial Management, my office. The centralization of this responsibility, which was formerly assigned to the individual awarding agencies, should allow the Department and the universities to work with each other more effectively. We have already worked out informal arrangements to coordinate our activities with the other Federal departments which fund research at universities so that in reaching an agreement with HEW, a university effectively will have satisfied the Government as a whole. We have recommended that OMB formalize this arrangement by revising its Circular A-88 and OMB is in the process of doing so.

Since we began operations in October 1978, we have received 155 audit reports on 84 universities. We have closed 20 reports on 16 universities and expect to settle with an additional 10 institutions within the next 60 days. Settlement means my office, the Audit Agency, and the university have agreed on the actions that need to be taken to bring a cited system into compliance with Federal requirements, and that the institution has either taken those actions or has established a schedule under which the actions will be taken. In both instances followups will be made to assure the agreement is adhered to.

Mr. FOUNTAIN. May I interrupt you at that point? You have entered into an agreement and they have agreed to establish proper procedures. How long do you wait before you follow up to see whether or not they have done so?

Mr. KIRSCHENMANN. It depends upon the nature of the procedure, but no later than 6 months. We will be following up no later than 6 months.

Mr. FOUNTAIN. Thank you.

Mr. KIRSCHENMANN. We are also in the process of developing comprehensive departmental policies and procedures on the resolution of audit findings. These policies and procedures should result in more consistent, responsible, and timely decisionmaking on audit findings. They will deal with the processing of an audit report from its issuance by the Audit Agency until its settlement and closure. The Department has already initiated a requirement that audit resolution officials obtain General Counsel concurrence if they disagree with the audit findings because of a different interpretation of a law, rule, or regulation. In addition to this requirement, the comprehensive policy will provide for high level review of major dollar audit exceptions

and of audit exceptions which are overruled by an awarding agency action official.

In addition, the Department has established a goal within which audit reports are to be resolved—6 months from the date of issuance to an HEW action agency. We have also pledged to reduce our unresolved backlog of monetary audit exceptions as of December 31, 1978, from \$200 million to \$100 million.

Both the Inspector General and the Assistant Secretary for Management and Budget have personally met with the key officials in each of the Department's principal operating components to establish a workplan for meeting that commitment. Furthermore, the Department has made significant improvements in the stewardship trackings of open audit reports, in performing oversight reviews of the principal operating components, and in the collection of disallowances. These improvements were described in the statement by the Inspector General and the Assistant Secretary for Management and Budget before the Legislation and National Security Subcommittee of the House Committee on Government Operations on Wednesday, March 24, 1979.

As part of our efforts to strengthen grant and contract management, the Department is considering a requirement that interest be assessed against an institution for the use of Federal funds when they are found to have improperly charged costs to HEW awards, and the use of sanctions against institutions which, after due notice, fail to conform to Federal accountability requirements. The Department has already published as proposed rulemaking, a regulation that would debar institutions and individuals which commit serious wrongdoing from receiving HEW grants. This regulation is comparable to a regulation which already exists for contracts. Public comments received on the proposed rule are now being analyzed.

In connection with Secretary Califano's May 18, 1977, initiatives to improve grant and contract management, we have put significant effort into the training of HEW grants managers and cost specialists. Over the past 2 years, a training program in grants administration was attended by approximately 800 grants management personnel from within the Department. This course emphasized the policies contained in OMB's grants administration circulars as well as the cost principles. Plans are underway for additional training in grants administration. Training sessions have also been conducted for cost negotiators on indirect costs, ADP costs, and the revised Circular-A-21.

Finally, my office is planning a computerized information system which will accumulate data on indirect costs and grantee accounting systems to aid in the evaluation of indirect cost proposals, the dissemination of indirect cost rate information, and the evaluation of grantee accounting capabilities.

All of these steps will contribute to the better administration of HEW research funds and a greater assurance that those research funds are properly accounted for. But in the last analysis, it is the research universities themselves who must ultimately accept responsibility for the effective use of research money and accountable reporting of expenditures for federally supported research projects. Given the nature of basic research and the traditional management style of universities—their decentralized governance, the absence of

regimented work, the absence of business and accounting practices applied routinely in other types of organizations—maximum reliance must necessarily be placed on the integrity of the institutions themselves and the personal integrity of their faculty and staff. Credibility is of paramount importance.

Some university spokesmen have been decrying the erosion of credibility between the Government and their institutions. I share the view that there has been an erosion, and much of the problem can be laid at the door of university accounting and recordkeeping practices that simply do not adequately document how and for what purpose public funds are spent.

Universities which are supported by public moneys and, indeed, the accounting profession itself, have a profound responsibility to assure that their financial statements and reports reflect the results of their operations accurately, fairly, and clearly. This is the responsibility the universities and the accounting profession must meet, if they are to retain the public confidence that they have earned over many years of service.

On the other hand, one must also recognize that part of this problem results from the proliferation of Government programs of all kinds—Federal support for research and development; grants-in-aid; requirements for health, safety, and equal employment opportunity compliance; and increasing pressures for accountability. Taken together, these have created conflicting administrative procedures that have contributed to the difficulty of maintaining sound accounting and recordkeeping.

Mr. FOUNTAIN. I think that is one of the most important paragraphs in your statement. It emphasizes "the proliferation of Government programs of all kinds—Federal support for research and development; grants-in-aid; requirements for health, safety, and equal employment opportunity compliance; and increasing pressures for accountability."

In the supplemental appropriations bill we had \$300-plus million for the Equal Employment Opportunity Commission. How they spend all that money, I don't know.

You say "this problem results from the proliferation of Government programs of all kinds." Some of these things are part of the problem. I wanted to emphasize that for the record.

Mr. KIRSCHENMANN. The subcommittee also asked for the Department's views on OMB Circular A-110 which establishes uniform administrative requirements for grants awarded to educational institutions, hospitals, and other nonprofit organizations. I think it is fair to say that HEW's view of OMB Circular A-110 is, on the whole, a favorable one.

Before the circular was published, in mid-1976, a state of near anarchy existed among Federal agencies in their administrative requirements for grants to nongovernmental organizations such as universities, hospitals, foundations, et cetera. In the absence of a core of uniform policies, each Federal agency had a nearly free hand in adopting whatever requirements it considered necessary or appropriate for its own programs. Human nature being what it is, the result was a bewildering array of inconsistent requirements.

On most of the 15 major topics covered by Circular A-110, there were some agencies that overregulated and some that underregulated.

And even where two different Federal agencies regulated at about the same level, there were almost always unnecessary differences.

Some of these inconsistencies were fully justifiable. Many of them came about merely because of personality differences among the policy-makers of the various Federal agencies. Policymakers, like the rest of humanity, do not all see the world in the same way.

The harmful effects of that kind of situation are obvious. On the one hand, unnecessarily burdensome Federal requirements waste time and money both for grantees and grantors. On the other hand, unduly permissive requirements invite abuses. And inconsistencies among Federal agencies create confusion and mistakes, and complicate the job of the grantee's management officials.

HEW therefore welcomed OMB's decision to develop the circular, even though it meant a substantial loss of our own autonomy in setting policy on important aspects of grant administration. As it turned out, the policies in the circular are, for the most part, not radically different from those that previously prevailed in HEW. We like to think this was because our policies were already about right.

For HEW, probably the most controversial change brought about by the circular is in the area of financial reporting. Many of our project grant programs were accustomed to getting financial reports from grantees that included breakdowns of costs by object of expenditure categories—such as salaries, supplies, equipment, travel, et cetera. Under Circular A-110, Federal agencies are no longer allowed to require such breakdowns, except on a case-by-case basis from those grantees that are referred to as "high-risk" organizations.

Opinion in HEW is divided on this point. Many HEW people don't see how they can fulfill their management responsibilities without traditional object of expenditure reports.

Many others, however, agree with OMB's view that object of expenditure reporting generally does not contribute significantly to accountability. They believe that eliminating it will in the long run have the desirable effect of forcing Federal monitoring to focus more on programmatic results and overall cost effectiveness, while getting away from the old "green eyeshade" preoccupation with input details.

After an initial period of resistance, the official view of the Department has swung around to accepting OMB's policy decision on this issue, and I believe we are now substantially in compliance.

To be honest, there are also other parts of the circular that have turned out to be controversial in HEW. That could have been predicted. No document as comprehensive as Circular A-110 could possibly please everybody 100 percent. But the things one might think are wrong about the circular pale to insignificance when compared to what's right about it. Taken as a whole, Circular A-110 deserves high marks.

Mr. Chairman, this concludes our prepared statement. We will now be pleased to answer the subcommittee's questions.

Mr. FOUNTAIN. Thank you very much for a very helpful statement.

Mr. Kirschenmann, from your description of the responsibilities your division assumed in October 1978, it appears that you are destined to play a very important role in the repair of the erosion of credibility between the educational institutions and the Government, which you speak of at pages 8 and 9 of your prepared statement. I am sure it is much too early to say whether your program will succeed. We hope it

will. We would appreciate your providing the subcommittee with copies of any progress reports that your division may prepare from time to time.

On another matter, at page 11 of your statement you discuss OMB Circular A-110. You state:

For HEW, probably the most controversial change brought about by the circular is in the area of financial reporting. Many of our project grant programs were accustomed to getting financial reports from grantees that included breakdowns of costs by object of expenditure categories—such as salaries, supplies, equipment, travel, et cetera. Under Circular A-110, Federal agencies are no longer allowed to require such breakdowns. * * *

Mr. KIRSCHENMANN, in addition to no longer requiring the categorical breakdown of expenditures in the reports of expenditures, ROE's, is it a fact that the revised Circular A-110 also changes the frequency of furnishing of ROE's by universities from every 3 months to once a year?

MR. KIRSCHENMANN. Let me refer to Mr. Lasker.

MR. LASKER. That is true in part, Mr. Chairman. Several years ago we had done a survey in HEW and found among the many research activities that we supported through grants with universities there was a wide variation in the type of fiscal and financial reporting that was required in universities. We established a standard report of expenditures, basing it for the most part on that which was being used by the National Institutes of Health, which is the agency most heavily involved in research activity.

At that time, in addition to establishing the standard form for financial reporting, we also established a standard reporting frequency which turned out to be annually. If the amount of expenditures exceeded a certain figure—and I do not recall at this stage what the figure was—then it could be on a quarterly basis. What OMB has done in effect is tied into a frequency that we had already established at HEW—annually.

MR. WYDLER. Mr. Chairman, I wonder if you would yield for a moment?

MR. FOUNTAIN. Yes.

MR. WYDLER. On that general topic, we have been made aware of the fact that the President has asked all the Cabinet officers and other people at the top levels of Government to hand in their resignations in some form of reorganization. This is not spreading down through the departments themselves, is it, as a form of cleaning up the operation? Is there anything such as this happening within the Department itself?

MR. KIRSCHENMANN. I have not heard of anything as of 9:30 this morning. I hope not.

MR. FOUNTAIN. We have until 10:25 to answer a rollcall. It is a motion on H.R. 4473 for the consideration of foreign assistance appropriations for fiscal 1980. I think it best that we recess now to answer that rollcall. The subcommittee will stand in recess for a few minutes.

[Recess taken.]

MR. FOUNTAIN. The subcommittee will be in order.

I am placing in the record documents from the files of HEW which explain more fully the nature of the controversy within HEW and its constituent agencies, which you discussed briefly at pages 11 and 12 of your prepared statement.

[The material referred to follows:]

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTE OF HEALTH

TO : The Under Secretary

DATE: November 16, 1977

FROM : Director, NIH

SUBJECT : Categorical Expenditures Report--BRIEFING

Prior to our meeting Friday morning, I want to give you information about the subject of my concern.

The Office of Management and Budget, in the interest of simplifying the Federal grant process, is attempting to meet that goal through the issuance of administrative requirements for uniformity in policy and reporting for the entire Federal grant activity. Initially, OMB issued Circular A-102, which covers state and local government grantees. Subsequently, OMB issued Circular A-110, essentially adopting those same principles for educational institutions, hospitals, and other non-profit organizations--NIH's major clientele. Both OMB Circulars prescribe a grant expenditures report, which eliminates object class reporting (Personnel, Equipment, Supplies, Travel, Patient Care Costs, etc.) and reduces expenditures information to total costs only.

Although it is agreed OMB's general objectives are laudable, echelons of management at NIH, PHS, and DHEW have consistently objected to the "one-line" expenditures report for discretionary grant programs for these primary reasons:

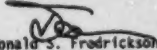
1. The categorical report is a crucial management tool in the assessment of continuation applications, in analyzing the appropriateness of requests for administrative increases (e.g., fringe benefit or institution-wide salary increases), in responding to requests from public and private sectors for cost data, and in doing statistical trend studies to enhance the quality of internal management.
2. DHEW and PHS Grants Administration Manual chapters and recent management initiatives from Secretary Califano mandate the continuing surveillance of the financial aspects of grants "through review of reports..." The expenditure report must have more information than total expenditures in order for such initiatives to be carried out.
3. Four essential elements in the HEW's discretionary grant process are the application evaluation, negotiation of award levels,

11/17/77
Copy sent Deborah Testa
scf

post-award monitoring, and the report of what is actually expended. The four processes represent a continuum based on categorical budget information. It does not seem reasonable to eliminate the final phase of accounting.

4. Grantee institutions are obliged to manage grants in part by budget object class in order to satisfy various prior approval requirements and maintain local cost controls. The categorical breakdown now required by the HEW is integrated into institutional financial management systems and will continue to be maintained in most cases even if they are allowed to report total expenditures only. Under these circumstances, categorical reporting is not burdensome to grantees.

I feel it is important that we discuss the implications of this move toward limited reporting prior to our final acquiescence.


Donald S. Fredrickson, M.D.



OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

APR 20 1978

Apr 21 10 42

Honorable Joseph A. Califano, Jr.
Secretary of Health, Education, and Welfare
Washington, D.C. 20201

Dear Mr. Secretary:

This is in reply to your letter of March 6, 1978, requesting an exception to Circular No. A-110 to permit object class expenditure reports on grants to universities, hospitals, and other nonprofit organizations.

You question the appropriateness of the Financial Status Report (SF 269) for discretionary project grants. As you indicate, this is the same form developed for use by State and local governments under Circular No. A-102. The inter-agency task force that developed Circular No. A-110 examined the applicability of the form to nongovernment grantees, and concluded that it was appropriate for their use. The task force was composed of representatives of all the major grant-making agencies, including two from the Department of Health, Education, and Welfare.

After extensive consultation with Federal agencies, the draft Circular was published in the Federal Register for comment. HEW in its response did not mention the absence of object class reporting as a problem. Since the Circular was published in July 1976, we have had a remarkable degree of acceptance of its financial reporting requirements. To date, we have had only two requests for exceptions to permit variations in financial reporting. Neither request was granted.

We are not at all sure it is necessary to get object class reports in order to adequately monitor grant performance. Circular No. A-110 calls for financial reports by function, activity, or program, rather than by object class. The purpose of this is to encourage integration of financial information with program information, to produce quantitative measures of accomplishment expressed in cost per unit where possible. We would be concerned that a return to object class reporting would encourage too narrow a focus on the cost of individual inputs, rather than relating costs to the value of services provided.

21 APR 78 000055

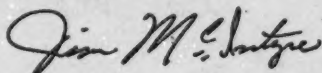
PRIORITY

Equally important from a Government-wide standpoint is the need to examine the impact of object class reporting on grant recipients. Several years ago an interagency study team made an exhaustive two-year review of the financial management of grant programs. The review showed that Federal agencies required grantees to report at least 103 different object classes. The team concluded that most of this detailed itemization was unnecessary, and that the benefits derived from analysis of even a relatively few object classes was not commensurate with the cost.

We recognize that standard financial reports may not be adequate in all circumstances. For this reason, Circular No. A-110 provides for additional reporting in certain circumstances. For example, it permits additional requirements for grantees with a history of poor performance, those not financially stable, or those that do not have a management system that meets the standards of the Circular. This provision was carefully designed to satisfy HEW concerns for proper monitoring. In addition, the Circular's financial reporting requirements permit agencies to require additional information to further monitor grants, when a recipient's accounting system does not meet the Circular's standards for financial management.

I would suggest that our staffs get together for a more detailed discussion of this matter, in order to get a better understanding of the various points of view. In the meantime, however, we would hesitate to grant any exceptions to Circular No. A-110.

Sincerely,



James T. McIntyre, Jr.
Director

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTE OF HEALTH

TO : Assistant Secretary for Management
and Budget, DHEW

DATE: *SEPT. 78*

Through: Director, NIH

FROM : Associate Director for Extramural Research
and Training, NIH

SUBJECT: Categorical Expenditures Reports

During our meeting of May 26 on this subject, you suggested that NIH solicit comments from a representative group of grantee institutions concerning the continued use of a categorical expenditures report format in lieu of the "totals only" format prescribed by OMB Circulars A-102 and A-110. This memorandum summarizes the results of that effort.

On July 10, 1978, a letter (see copy attached) was sent to nine addressees. This sample size was chosen to allow prompt follow through on your suggestion. Recognizing that OMB regulations require clearance for surveys or questionnaires intended for ten or more non-Federal respondents, we concluded that the potential advantages of a larger sample would be offset by the significant delay which almost inevitably accompanies the forms clearance process.

In selecting the nine, we focused on individuals who are widely respected for their judgment and technical expertise regarding the business management of academic institutions. We also took into account geographical considerations as well as type of institution and size of grant program. In the interest of obtaining the broadest possible coverage, two of the nine letters were sent to organizations representing multiple institutions--namely, the Group on Business Affairs of the Association of American Medical Colleges (AAMC) and the Association of American Universities (AAU).

To date, the nine letters have generated fifteen individual responses; the larger response is the result of the original nine letters being shared with some of the addressees' colleagues. Fourteen of the fifteen responses are favorable to the NIH position. This includes a supportive statement from the AAMC, which reflects a consensus based on an expanded sample derived from member institutions of the Steering Committee of its Group on Business Affairs. In supporting the NIH position, several respondents stated that the categorical format poses no significant burden and that it is a useful management tool to them in administering sponsored programs.

We also received a statement from the AAU which indicates a willingness to work for and support uniform reporting that would include categorical information. The AAU response specifically suggests that we "consider asking OMB to revise Circular A-110 to prescribe another financial reporting form which you [NIH] believe will better suit your needs."

Moreover, representatives of the Committee on Government Relations (COGR) of the National Association of College and University Business Officers, in a meeting at its offices on July 18th stated that, while COGR is generally opposed to deviations from OMB Circulars A-102 and A-110, it could support the AAU position of considering a change to OMB Circular A-110 to allow for a uniform Government-wide categorical expenditures report format.

It is interesting to note that three separate letters from educational institutions refer to the effects of the decision by the National Science Foundation, more than a year ago, to implement a highly simplified non-categorical expenditures report. Based on their experience to date, it is apparent that at least some grantees view the new non-categorical format adopted by NSF as being more burdensome than the categorical report format previously in effect. As one respondent reported, the changed format has resulted in "a considerable increase in subsequent expenditure of time, effort and money on written and telephoned communications."

The one response we received that opposed our view came from the Director of Grant and Contract Services at the University of Washington. He had polled colleagues at Stanford University, Yale University, University of Pennsylvania, University of Michigan, and University of Wisconsin. His response indicated that Stanford University and University of Wisconsin find our position acceptable whereas Yale University, University of Pennsylvania, University of Michigan and his own institution oppose any exception from the OMB Circulars. On the basis of the responses received, we believe that the majority of the business management officials in our grantee institutions recognizes the importance of a categorical expenditures report format; consequently, we recommend that you reopen this issue with OMB with an eye toward either obtaining a deviation for DREW discretionary grant programs or exploring the possibility of developing a Federal-wide uniform categorical expenditures report as has been suggested by organizations such as AACU, AAU, and COGR. If, as part of these deliberations, you and the OMB representatives determine that an expanded survey is needed, we would be happy to participate in such an effort.

William F. Raub, Ph.D.

Attachments

cc: Mr. Rhodes
Mr. Miller
Mr. Droke
Mr. Shaw
Mr. Lasker
Mr. Roumel



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20814

July 10, 1978

I am writing to you concerning a matter of mutual interest with respect to the administration of NIH grants.

As you probably are aware, the Office of Management and Budget (OMB) has issued Circulars A-102 (revised) and A-110, which prescribe uniform administrative requirements for the entire Federal grant activity. One aspect of this effort is a standard expenditures report format which eliminates all object class identification (i.e., personnel, equipment, travel, patient care costs, alterations and renovations, etc.) and replaces that with essentially a one-line report which would show total expenditures only.

The National Institutes of Health and the Public Health Service have argued against this particular approach for our discretionary grant programs. It is our contention that a categorical expenditures report is not only an accounting document, but a management tool as well, which is used by grantor and grantee in carrying out our partnership role in administering project grants. More specifically, we contend that a categorical expenditures report is of mutual benefit for:

- Monitoring and controlling rebudgeting actions and the use of funds on which specific restrictions have been imposed as a condition of the award (For grantees, this has particular applicability to the management of the Institutional Prior Approval System)
- Performing a budget analysis associated with the submission and administrative review of a non-competing continuation application
- Evaluating the propriety of requests for administrative increases which may be awarded non-competitively
- Reconciling claims for stipends awarded for National Research Service Awards (NRSA's) with approved stipend levels approved via Statement of Appointment forms; this assures compliance with the laws governing NRSA's including the accurate establishment of payback requirements

- Auditing and verifying all indirect costs claimed through the Summary Reports of Expenditures Adjustment Sheet to assure proper settlement
- Maintaining a data system of detailed categorical expenditure information to enhance our overall management, including the development of "trend" studies, operating the NIH/Grantee Interface System, and responding to a variety of inquiries for detailed expenditure data from public and private sectors

We also have pointed out that NIH grantees have financial reporting systems in place, which they will have to retain anyway in order to control expenditures related to meeting prior approval and audit requirements, and even to report totals only. We have been advised by a number of our grantees that the actual reporting of expenditures by a broad object class is not a burden under the circumstances.

We recognize that the reduction of paperwork is a laudable goal and one which we support generally; however, we are concerned that the loss of categorical expenditures information will ultimately require both the NIH and its grantees to generate other—and probably less efficient—forms of paperwork and communication to discharge our joint stewardship effectively.

NIH would greatly appreciate your views and the views of any of your colleagues on the subject. Please send me any written comments you would care to make by August 1, 1978.

Sincerely yours,

Original Signed
William F. Raub

William F. Raub, Ph.D.
Acting Associate Director for
Extranural Research and Training

Addressees:

Mr. Donald R. Baldwin
 Director, Grant and Contract Services
 University of Washington
 AD-24
 Seattle, Washington 98195

Terence A. Feuerborn, Ed.D.
 Director, Office of Contract and Grant Administration
 University of California, Los Angeles
 405 Hilgard Avenue
 Los Angeles, Calif. 90024

Mr. C. N. Stover, Jr.
 Associate Dean for Administration
 University of North Carolina School of Medicine
 Chapel Hill, N. C. 27514

Mr. Peter V. Schroeder
 Administrator, Grants and Contracts
 New England Medical Center Hospitals
 171 Harrison Avenue
 Boston, Mass. 02111

Mr. Warren Kennedy
 Chairperson, Group on Business Affairs, AAMC
 Associate Dean for Administration
 Bowman Gray School of Medicine
 Wake Forest University
 Winston-Salem, N. C. 27103

Mr. Newton Cattell
 Executive Director
 Association of American Universities
 1 Dupont Circle N. W.
 Washington, D. C. 20036

Mr. Thomas A. Fitzgerald
 Director of the Office of Grants Administration
 and Institutional Studies
 New York University Medical Center
 550 First Avenue
 New York, N. Y. 10016

Mr. O. M. Schoenemann
 Business Manager for Grants and Contracts
 Baylor College of Medicine
 1200 Moursund Avenue
 Houston, Texas 77030

Mr. A. R. Potami
 Director, Research Administration
 University of Minnesota
 2642 University Avenue
 St. Paul, Minnesota 55114

Mr. FOUNTAIN. One of these documents is a letter from the Assistant Director of Extramural Research and Training of the National Institutes of Health to the Assistant Secretary for Management and Budget of HEW, dated September 1978. In that letter the plea was again made that the old requirements of OMB Circular A-110 be restored. They supported the request with the results of a survey which polled a number of grant and contract office directors at universities throughout the country to determine their preferences with respect to the old and new report of expenditures requirements. According to NIH, most of the schools opted for the old requirements.

Were NIH's letter and the results of the survey NIH conducted considered by your office?

Mr. LASKER. Mr. Chairman, let me deal with that question. Yes, it was. In fact, we had asked NIH to perform that survey. As you say, as a result of the survey it was their finding that the vast majority of the universities they contacted had no objection to continuing to submit the object class-type expenditure reports.

Mr. FOUNTAIN. Do you know why HEW did not pursue the request of NIH for a restoration of the old requirements for categorical reporting of expenditures?

Mr. LASKER. We did pursue it, Mr. Chairman. On several occasions we met personally with officials at OMB. We corresponded with the officials at OMB in an attempt to get authorization to continue the type of object class reporting but we were refused.

Mr. FOUNTAIN. I do not mean to express an opinion as to which procedure is better because I do not know. I asked the question primarily to get an expression from you into the record.

Mr. KIRSCHENMANN, you said on page 2 that one of the important recommendations adopted in the revised OMB circular is a requirement for 100 percent accounting of the time or effort of university staff whose compensation is charged to Federal funds. Would you describe this new method and give us your judgment as to how reliable and accurate it will be. To what extent do you think this change will correct the lack of reliable salary and wage data described by Mr. Stepnick yesterday?

Mr. KIRSCHENMANN. That requirement, together with the requirement for certification by the individual or someone having firsthand knowledge of what the reporting individual is doing, should go a long way toward solving our problems.

One of the real problems that we had in the past with personnel accountability was the multiple share base that we used to identify what these individuals were doing to earn their compensation. Mr. Stepnick mentioned that yesterday. We ran into a multitude of records.

There was a separate survey for reporting their direct charges to Federal awards. These were prepared monthly. There were surveys at the end of the year to identify what their administrative activities were, their indirect costs. There were separate surveys that were made for purposes of reporting to States where it was a State institution and so on. These surveys when taken together just did not add up or in many instances added up to more than 100 percent of an individual's time.

Making an individual report all his activities in one survey at one time seems to me to add much more credibility to the process.

Mr. FOUNTAIN. Mr. Stepnick, I believe I thanked you yesterday for your very comprehensive description of the work of the Audit Agency. Now, we will proceed to ask you some questions.

Of the 924 professionals on your full-time staff, how many are accountants?

Mr. STEPNIK. With the exception of a half-dozen people who are classified as computer specialists, all the professionals are professional accountants.

Mr. FOUNTAIN. Dr. Cohen, in his testimony yesterday, reported that the HEW Audit Agency did an audit of the Harvard School of Public Health. Is that correct?

Mr. STEPNIK. Yes, sir.

Mr. FOUNTAIN. HEW's draft report on the Harvard School of Public Health disallowed about \$2.5 million, of the \$37 million total Federal funds audited. I do not know whether that is a high or low proportion but is that correct?

Mr. STEPNIK. Yes.

Mr. FOUNTAIN. HEW also was unable to validate an additional \$15 million. Is that right?

Mr. STEPNIK. Yes, sir.

Mr. FOUNTAIN. How do you explain such a high percentage of disallowances? In your judgment, to what extent does this relate to the nature of the Harvard audit? I have heard it was more comprehensive and more detailed than HEW's normal audit.

Mr. STEPNIK. I have with me Mr. Edward Parigian who is our Regional Audit Director from Boston. He is familiar with the Harvard audit. Also, I have with me Mr. Raymond Beaudet, who is Assistant Director of the Audit Agency. He is a specialist in our university audits.

First of all, let me say in fairness that the material that is in the record with respect to the school of public health is based on the draft audit report. The status of that information is such that Harvard, in accordance with our usual procedures, is to be given the opportunity to review and comment upon it. When we receive that information, we will issue a final report. To that extent, the conclusions are tentative.

Most of the disallowances relate to the problem of cost transfers that we have heard about. Others relate to undocumented consultant charges. These are areas that, as I mentioned yesterday, we have found to be problem areas in many of the schools that we audited.

In the case of Harvard, in addition to testing all the charges to a number of selected grants, we placed little credibility on the original entries that were made because of the extraordinarily large volume of cost transfers. We felt we could best do our job by expanding our work in the cost-transfer area.

Therefore, using statistical sampling techniques, we selected approximately 100 cost transfers over \$100 for detailed examination. Excuse me, that was over \$500. We identified those that were inadequately documented, those that appeared to have been made solely for the purposes of using unexpended funds and maximizing Federal reimbursements, and other kinds of improper practices. Then we projected the results and arrived at the \$2.1 million figure.

The biggest difference between the Harvard situation and what might be found in many of our audit reports is that we are not always

able to make that projection. We identify the problem and we identify only a portion of the total cost that might be disallowed. The conditions of the records are such that it is not possible to handle it through a scientific sample. We have to use a judgment sample.

Under these conditions the result is sometimes less than complete insofar as the full identification of unallowable charges.

Dr. GOLDBERG. Mr. Stepnick, were you able to project the total amount of disallowance in this case because the test sample was larger and statistically valid for the purpose of projection, larger than you normally would examine in a typical audit?

Mr. STEPNIK. That is part of it. The other part just happens to be that the condition of the records was such that we were able to devise a scientific sampling plan.

Dr. GOLDBERG. How would you characterize the Harvard audit in relation to the average audit your agency makes? Weren't there special circumstances in this case—for example, the NIH management survey that preceded it—which required that your agency mobilize more auditors than you otherwise would have done? Wasn't this a more comprehensive and more intensive audit than the average audit?

Mr. STEPNIK. Yes, sir.

Dr. GOLDBERG. Would you care to speculate on what the outcome might be if you had the luxury of putting that number of auditors into other institutions? Do you think it likely that the result would be any different from what you find in the normal or average audit?

Mr. STEPNIK. I think the results would probably differ only with respect to the dollars that we might be able to quantify for possible disallowance. The present audits, generally speaking, are quite adequate for identifying the problem areas and, where the records permit, for identifying some unallowable costs and for identifying the kinds of recommendations that need to be accepted in order to improve the situation in the future.

Dr. GOLDBERG. The inference I draw from your response—and I would appreciate your saying whether you feel it is a correct one—is you are satisfied that when HEW audits an institution, it commits enough resources to do the job. The primary problem is that you do not have sufficient staff to maintain a regular schedule and to do as much institutional auditing as you might like.

Mr. STEPNIK. Yes, sir.

Dr. GOLDBERG. Thank you, Mr. Chairman.

Mr. FOUNTAIN. As was brought out yesterday, if an institution simply has no documentation, you are wasting your time.

Mr. STEPNIK. Yes.

Mr. FOUNTAIN. Except to get a general idea.

Mr. STEPNIK. We are wasting our time except for the value of knowing that a problem exists and getting the benefit of a professional accountant's judgment as to the kinds of things that need to be done to correct it so that in the future there will be adequate accountability. I do not think that should be discounted.

Mr. FOUNTAIN. I agree with you. I am thinking about the case where you have gone back several times and still find the same thing.

Mr. STEPNIK. To rely on the audit process by itself to close an accountability gap that is created by inadequate systems does not seem to me to be a wise use of professional resources. I could recommend to

the Inspector General that we put 100 more auditors and maybe 50 criminal investigators to look more deeply at and to exercise some sort of surveillance over all the principal investigators to see how they are actually spending their time. However, I think if I recommended that I would recommend that we do the university's job for them. That is their responsibility and they should demonstrate to us through their systems that they are doing it. Then we could make very expeditious and thorough audits.

Mr. FOUNTAIN. I know all the institutions desperately need all the money they can get. They have tight budgets all the time. We want to see them get what they are entitled to.

However, I cannot understand what is so complicated about an accounting system and accounting practices which will enable the institution itself to know how the money is being spent, as well as your agency, representing the Government, to assure that it is spent wisely, honestly, and for its intended purpose.

Is there anything complicated or excessively time consuming to keep those kinds of records?

Mr. STEPNIK. It is really difficult to understand why the problem has persisted for the number of years that it has. In essence, I do not think it is that complicated, Mr. Chairman. I think there has not been enough concern about the accountability objectives that you just stated. This is a factor in why we have the problem today.

Mr. FOUNTAIN. There probably is a feeling that they are spending these funds for good purposes, and that in the absence of stringent enforcement, there is no reason to keep an accounting of the specific amount which they allocate to each program.

Mr. STEPNIK. That is right. It is the philosophy, "Trust us. We shouldn't have to make a showing." That does not quite meet the accountability principles.

Mr. FOUNTAIN. If we adopted that principle, we could save a lot of money and eliminate a lot of auditors by adopting a general revenue-sharing program for universities and colleges, giving them the same amount of money. Maybe there is some merit in that; I don't know. However, as long as we have a system requiring accountability, it is hard to understand why they cannot comply with it.

For the record, would you define what you mean by cost transfers and give some examples other than those given yesterday by Dr. Cohen and the other witnesses?

Mr. PARIGIAN. Mr. Chairman, the cost transfer is an accounting-type transaction which occurs when a cost which previously has been recorded is at some future time all or in part transferred by way of a general entry. A general entry is just a book entry which takes that particular cost and transfers it to another project. These happen within and among Federal projects or between and among Federal and non-Federal projects, depending upon how certain of the people see the recorded transaction.

For example, a person's salary is charged to a particular project and certified to, let's say in January 1979, of \$1,000. At some future time, anywhere from 200, 300, to 400 man-days later, someone somewhere determines that part of that cost of the \$1,000 that was recorded should now be transferred to another project.

Mr. FOUNTAIN. Is that legal?

Mr. PARIGIAN. In my view it is not. Whether legal or not, I really do not know but certainly it is not a proper or appropriate charge.

What has happened is this. Under this system someone, presumably of firsthand knowledge, has certified at that time that the charge is appropriate. Six months or 9 months later somebody takes that same charge or part of that charge and transfers it to another project and certifies that is also correct.

Mr. FOUNTAIN. What would be the purpose of doing that?

Mr. PARIGIAN. It is a multipurpose thing. One is that they have a project to which a charge was transferred that had not expended all its funds or a project from which the cost was being transferred which was going to be overexpended. It would not be allowable if it were overexpended. Therefore, it would be transferred to another project. That is a type of cost with which we take exception.

Mr. STEPNIK. I would add this. It is possible, even though originally certified, that the original entry was in error. In that event, the transfer later to correct it and charge it to the account to which it originally should have gone would be in order.

Too often there are inadequate explanations of these transfers. It is becoming a very laborious chore to sort out those that are legitimate and those that are not. In most audits a discussion of these cost transfers consumes much time.

I agree with Dr. Phin Cohen's statement yesterday, among others, that journal transfers are the putty of grants management. This is because there are not adequate explanations for these transfers.

When they get to be in the large volume, such as our Harvard public health work indicates, it destroys the credibility of the entire system of the original charges. If 35 percent of the original charges later need to be changed, it is very difficult to have much confidence in the basic system.

Mr. PARIGIAN. There is one other comment I might make, Mr. Chairman. Mr. Stepnick just alluded to the fact that many of these transfers are legitimate. Our review has shown that a good number of them are legitimate, but only after exhaustive types of auditing because of lack of documentation.

Mr. FOUNTAIN. Tell us what a legitimate transfer is. Suppose scientist A makes an application and gets a half million dollars for a project. To what extent is the institution entitled to take those funds and spend them for other purposes? Is it proper for them to take \$1,000 from that grant to pay the salary of somebody in an unrelated activity?

Mr. PARIGIAN. No, it is not proper. However, the type of transaction that could be proper is this: Sometimes in some universities, oftentimes in many universities, there is a paper lag. A person is being transferred legitimately from one project to another. Sometimes it is 30, 60, or 90 days before the paperwork catches up with the appropriate charge of salary. At that point in time you could go back and determine this individual was subsequently transferred to another project, although his salary was charged to the initial project. That would be a legitimate type of class transfer.

Mr. FOUNTAIN. A brief notation, without all the details, indicating in one or two sentences why he made the transfer, would give an ex-

planation, or at least enable the person who did it to refresh his own recollection.

Mr. PARIGIAN. Yes. Sometimes that happens. However, more often that explanation is not on the journal entry itself. Therefore, you have to go back to the initial charge and get the paperwork together.

Mr. FOUNTAIN. Are you in a position to determine how much time, how much effort, how many man-hours are involved, and how much is expended just to check on money you have given someone to see whether or not it is spent for the purpose for which it was intended? Have you ever estimated on an annual basis what it costs when you have no explanations in the journal entries and have to go back to the initial charge and get the paperwork together?

Mr. STEPNIK. No, sir. My statement indicates the total cost of our audits at universities, which we estimated at about \$6 million. We audit about \$1.5 billion worth of Federal funds.

Mr. FOUNTAIN. Out of about \$4.5 billion.

Mr. STEPNIK. Yes, about \$4.5 billion.

In 1978 we recommended that \$3.5 million be recovered. We understand NIH actually has recovered cash or has notes receivable for settlements of about \$2.2 million.

There is one other benefit factor, though, that is important to mention. When we make an audit of indirect costs, as distinguished from direct costs, we recommend to Mr. Kirschenmann frequently that the rate that the university would otherwise use to recover indirect costs be reduced perspective. Frequently the savings here which do not result in recoveries, but payments that would otherwise be made not being made at all, run into tens of millions of dollars.

Mr. FOUNTAIN. It seems to me we are talking about elementary records that any institution ought to be able to keep, not multitudinous records. I think all of us at the Federal level, particularly those of us who have been here for a long time, are fed up with Federal harassment of our people, particularly the private enterprise system and even public institutions if there is unnecessary and undue harassment and an unnecessary number of regulations.

My experience has been that you can get the same amount of information through a simplified process. You can save a lot of people a lot of time and, it seems to me, enable the chancellors and others who are in charge of the institution to know if grant money is being properly managed and wisely spent. They have no way of knowing that, do they, under some of the accounting practices you have found?

Mr. STEPNIK. No, not insofar as Federal funds would be concerned.

Mr. FOUNTAIN. That is what I mean—as far as Federal funds would be concerned. You could even have a dishonest person at the finest institution in the world and with this kind of accounting practice some of the Federal moneys may not be used for the purposes for which the institution itself and its investigators want those funds spent.

Dr. Cohen said that Harvard University required that all interviews of Harvard employees be arranged by representatives of Harvard University's internal audit department. A further condition which Harvard made was that there be present at each interview a member of the Harvard internal audit department or a designated

administrative assistant from various departments within the school of public health.

Is this a customary procedure in conducting interviews during HEW audits in colleges and universities?

Mr. STEPNIK. It is done on occasion, but I would say that more often than not we neither ask for nor is it suggested to us that anybody be present. In this case the people who were present were simply members of the internal audit staff. They were not high management officials who were in a position where in our judgment they could pose any significant threat to the individuals involved.

We ourselves, without any consultation with management or the internal audit staff, decided to whom we would speak. We decided what we would ask. There was no advance discussion of any questions. The interview questions differed from one interview to another depending upon the information that we had obtained on our records.

Dr. Cohen seemed to suggest this was an extremely inhibiting process. While I can understand how somebody could believe that there was a potential for inhibitions, the results do not bear that out.

We have been interviewing people under various methods during our regular audits for years. Some interviewees speak quite frankly while others are reticent. That was precisely the situation here. Many interviewed told us, "We do not work on that project." We did not tell them why we asked them whether they worked on that project. We just asked them. They were frank and honest.

Further, where we initially decided that this arrangement would be followed, the understanding was that at any time during the process if we felt it could result in the kinds of inhibitions that were projected then we would change it. Therefore, we feel comfortable that this did not affect the quality or fairness of the audit.

Mr. FOUNTAIN. When these conditions were imposed by Harvard, did your agency object to the requirements which Harvard set?

Mr. STEPNIK. Initially we said that we would prefer not to. After some negotiation we did go along with it, sir.

Mr. FOUNTAIN. I guess it depends upon the individuals involved as to whether or not the presence of someone serves as an inhibition.

Mr. STEPNIK. This is right. Even without a person being present, when you are going to conduct a series of interviews—when people find they are going to be interviewed—and we do not tip them off too far in advance—it is amazing that even without anybody being present how fast they find out who already has been interviewed. They get together and discuss all the questions that were asked. It is really a normal part of the communication.

Mr. FOUNTAIN. That is the answer to the next question I was going to ask you. I think I may be getting into something that you have already covered. I sometimes have a tendency to get ahead of my own outline and then find out later that I have a note on it. It is so easy to overlook these things. Therefore, I ask the questions when I think of them.

I think you were present at the hearing yesterday. Mr. Stepnik, when Dr. Robert J. Klebe testified that he was told by Mr. James Conn of the HEW Inspector General's office that auditors are not concerned

about funds from one grant being used to fund an unrelated project. Was Mr. Conn accurate in his statement when he allegedly told Dr. Klebe that auditors are not concerned about such transfer of funds?

Mr. STEPNICK. No, sir.

Mr. FOUNTAIN. If he said that; I am not saying that he did.

Mr. STEPNICK. Mr. Conn works in Washington. He is part of the Office of Investigations of the Office of Inspector General. It seemed quite incongruous to us that he, rather than the auditors, would be giving advice about auditing to anybody. However, it is true that years ago he was in the Baltimore office of investigations.

I spoke with him. He does not recall the conversation. He was quite surprised.

In any event, the statement that was ascribed to him is not true. My testimony yesterday and much of discussion that we have already had clearly indicate that cost transfers from one project to another are an area to which we give particular scrutiny during our audits.

Mr. FOUNTAIN. That has prompted me to ask another question. This is really only indirectly related to our subject matter.

Have you been able to appreciate the importance and significance of the complete independence of the Inspector General in your Department—appointed by the President, confirmed by the Senate, and not subject to the jurisdiction of the Secretary in his particular area of responsibility?

Mr. STEPNICK. Oh, yes, sir. There has been no question that the audit function, which has always been quite independent in HEW, has continued and become more so under the Inspector General concept. I would add that what makes it particularly good from our viewpoint is the ease with which issues such as accountability in educational institutions, problems that have been around for many years, have commanded the attention of the Inspector General, how easily he can bring those to the Secretary, and how quickly the Secretary will act on them when the Inspector General suggests that he do so. It certainly was not quite that easy in prior years.

Mr. FOUNTAIN. That is precisely why we put that provision in the bill. Of course, most of the agencies of Government opposed it and I can understand why.

Mr. STEPNICK. The auditors did not.

Mr. FOUNTAIN. I see that they did not.

However, down through the years—and this is my 27th year on Capitol Hill—we have been exercising some slight semblance of surveillance of the agencies under our jurisdiction. We have made various recommendations, and sometimes the agencies will comply with our recommendations.

For instance, in Agriculture they had established an Inspector General, but when Mr. Butz came in he abolished the office. We, therefore, concluded that the only way to make the office permanent was to make it statutory. Fortunately, we had enough evidence of waste, extravagance, fraud, and in some instances outright thievery, in some of the agencies so that Congress did not have any hesitancy in passing this legislation. It passed by a tremendous vote.

The final vote to put Inspector Generals in 12 agencies at one time passed the House by a vote of about 386 to 6, notwithstanding—to show

you the importance and significance of it—the opposition of practically every Cabinet officer. I think this shows the concern of the Congress.

It also indirectly relates to our concern here that this situation does not get out of hand. It could be detrimental to the universities and colleges in prohibiting Congress from appropriating funds which they desperately need. If something gets an image of waste and extravagance, members will not hesitate to vote against funds for it. That is why we are trying to clear this thing up and bring the universities and the Government together so that they can work out some system and prevent this sort of image from developing any further.

Mr. GOLDHAMMER. I have a question on cost transfers, Mr. Stepnick. In your opinion are cost transfers trivial infractions, or do you regard them as substantial infractions for the most part? In general, would you consider them to be serious infractions?

Mr. STEPKNICK. Yes. They have been used to attempt to maximize reimbursement. I am not saying that fortunes were so used, but it is a weakness in financial management that permits manipulative transactions and manipulative entries. It is a symbol of the kinds of things that need to be corrected in order to provide for the credibility and integrity of the accountability process.

Mr. GOLDHAMMER. They are not technical violations?

Mr. STEPKNICK. That is correct.

Mr. FOUNTAIN. Mr. Stepnick, at page 4 of your statement, you indicate that many schools, especially the smaller ones, have not been audited for many years. Actually the terms "many schools" and "many years" are not very informative. Does your data bank provide the basis for a more detailed statement or tabulation which would indicate the number of small schools involved, the total amount of money awarded to these small schools in grants and contracts, and the average length of the audit cycle for these schools during the last 5 years?

Mr. STEPKNICK. Yes. I think we could supply that for the record.

Mr. FOUNTAIN. Please supply that for the record. We would appreciate it.

We would also be interested in knowing the total number of schools which have not been audited at all and the total value of grant and contract funds provided these unaudited schools.

Mr. STEPKNICK. We can incorporate that in the same information.

Mr. FOUNTAIN. When you submit it, we would appreciate an expression of your views as to whether these institutions should be audited more frequently.

[The information follows:]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
OFFICE OF THE SECRETARY,
Washington, D.C.

On page 2 of our statement, we pointed out that the Federal Government expends about \$5.4 billion annually in grants and contracts to about 2,500 educational institutions in support of academic science, research and development, fellowship and training grants, facilities and equipment for institutions and general support for science.

On page 4 of our statement, we pointed out that many schools, especially the smaller ones, have not been audited for many years. You asked that we prepare a more detailed statement about the number of small schools involved, the amounts awarded to these schools and the average length of the audit cycle. You also asked for the number of schools which have not been audited and the

total value of unaudited funds. Further you asked for an expression of our views as to whether these institutions should be audited more frequently.

Our response follows:

While our data bank is geared to identify schools audited, we are able to use it—in correlation with other data—to obtain reasonably precise information about this situation. We developed the following information based on data pulled from this bank, correlated with information available from the National Science Foundation that essentially identifies for us the audit universe. Information from these two sources follows:

Federal funds awarded to educational institutions for research and demonstration represent about 55 percent (\$3 billion) of the total amount awarded; the remaining 45 percent (\$2.4 billion) represents awards for other activities, of which student financial aid programs (\$1.5 billion) represent the major funding.

For purposes of this calculation of audit cycles, since biennial student financial aid audits are mandated by law,¹ we have limited our analysis to those schools receiving only research and development funds. \$2.5 of \$3 billion awarded went to the 100 schools receiving the greatest number of Federal dollars. Over the past 5 fiscal years, we have issued a direct or indirect cost report for the 85 schools under our cognizance approximately every 2.5 years. The remaining \$5 billion is spread over about 350 schools. Over the past 5 fiscal years, we have audited about 150 of these. The audit cycle for the 150 schools was approximately 2.8 years. However, when considering the 400 schools not audited, the audit cycle becomes approximately 11.3 years. Therefore, less than 1 percent of the \$500 million awarded to small schools is audited annually.

We believe institutions below the top 100 should be audited every 3 to 5 years.

Mr. FOUNTAIN. On page 5, at the end of the second paragraph, you refer to the "allowability" and "allocability" of costs claimed for reimbursement. In order that the record is absolutely clear on the meaning of the term "allocability" in the sense used, we would appreciate some amplification for the record.

Mr. STEPNIK. For the record—

Mr. FOUNTAIN. You can do it here today. If you can, give us a brief statement, or you can submit it.

Mr. STEPNIK. Allowability simply means that under the cost principles it is the kind of expense for which the Government will pay. They will pay for salaries. They will pay for rent. They will pay for fringe benefits. However, they will not pay for political contributions or interest expense. This would be "allowability."

Allocability simply means was it Government-supported work. It is a salary charge, but did the person work on a Government project? If so, the salary is allocable to that project. If it is teaching, the cost should be charged to teaching and it is allocable to teaching but we would not pay for it even though it is an allowable kind of expense if it were reimbursable.

Mr. FOUNTAIN. In your statement, on page 6, you listed five problem areas, including inadequate salary and wage documentation, and improper or inadequately documented cost transfers. Why have these conditions persisted so long? If the HEW Audit Agency and the Secretary's office believe these problems are serious, why have you not acted to obtain compliance?

For example, why hasn't HEW said to the universities, in substance, "If you don't improve your practices, you just will not get any more Federal funds"? That is what they are telling our university

¹ National Direct Student Loan 45 CFR 174.19(g); College Work Study 45 CFR 175.19(e); Supplemental Educational Opportunity Grants 45 CFR 176.19(e); Basic Educational Opportunity Grants 45 CFR 190.85(b).

down in North Carolina now as a result of Mr. Califano's trying to tell them how to run their curriculum.

Mr. STEPNIK. I would love to have Mr. Kirschenmann answer that question.

Mr. KIRSCHENMANN. I don't know if there is an easy answer to that. As long as I can remember, from the late 1950's, there has always been opposition on the part of university staff, in particular the faculty, to maintaining of time records and reports and this type of thing. I think it is an emotional problem, but it has always been there.

We have been trying for many, many years to work with the universities to see whether or not the Federal requirements were really unreasonable; to test out their premise. Moreover, the cost principles themselves really were not very clear on what Federal requirements were. I, as an accountant, have my views as to what accountability means, but the cost principles, the A-21 principles, by which we were bound, were much too broad to allow us to set down any specific requirements on the institutions.

That is why in 1975 we began developing the recommendations that we made to OMB and which found their way into the revised circular that you have right now.

Mr. FOUNTAIN. I would hope the institutions would be in such shape that it would not be necessary—but it seems to me that if you said, "If you do not improve your practices you will not get any more Federal funds; the funds will go only to schools that have satisfactory accountability," those institutions would be persuaded to change their practices. That is pretty persuasive to get them to improve their accounting systems or else face the prospect of losing investigators to schools that are eligible for Federal funds.

Mr. KIRSCHENMANN. In past years the view was that it was either black or white. If an institution did not conform, the only alternative was to deny them any Federal funds at all, which would have caused more damage to the research program than we were willing to incur.

Mr. FOUNTAIN. I agree.

Mr. KIRSCHENMANN. Now, I think we are starting to see that there are areas of gray. There are sanctions that can be taken against institutions which would not necessarily destroy the research effort in that institution. I think that is the way we are moving.

Mr. FOUNTAIN. On page 7 of your statement, you point out that compliance with the requirements has consistently been found to be nonexistent or inadequate at about 70 percent of the major colleges and universities you audit. That means that 30 percent of the major colleges and universities you audit were in compliance. Is that the case?

Mr. STEPNIK. Yes. To say that they are in compliance does not mean they had an optimum system but simply that we were able through our examination to satisfy ourselves that Federal funds were being adequately accounted for in 30 percent of the cases. However, in 70 percent, as my statement indicated, we really were not able to satisfy ourselves because of the inadequacies in the system.

Mr. FOUNTAIN. Did you find any optimum situations?

Mr. STEPNIK. We are still looking for a model that we could hold up. One of the problems is that there is a great variety in the financial

management systems among universities. There is nothing that is really standard. Therefore, it is difficult to say this is what everybody should do. I wish that it were possible, but I do not think that will ever be the case.

Mr. FOUNTAIN. Can you explain why some institutions are able to substantially comply, whereas others cannot or will not?

Mr. STEPNIK. I think the only explanation that I can offer—and it is probably not a complete one—is that some of the factors that Mr. Kirschenmann mentioned were just not in themselves or in combination so prevalent in these schools that they were not able to work something out as an accommodation.

Mr. FOUNTAIN. In your audits have you found schools which are reasonably consistent in their compliance? By that I mean, except for an occasional slip or error here and there, that they do maintain adequate records and do have a satisfactory accounting system.

Mr. STEPNIK. Yes. They would be included in that 30-percent figure.

Mr. FOUNTAIN. Where your records show poor accounting practices by the grantee institutions, does your agency always make followup audits to determine whether the accounting system flaws have been corrected?

Mr. STEPNIK. We have a system of making followup audits but it is designed as a quality control check on how well the operating agencies of our Department are acting in resolving the audit findings.

We make the followup audits on a sample basis. I think we made about 69 such audits for all of HEW in fiscal year 1978, of which 35 involved colleges and universities.

Our objective is to be able to see whether, let's say, the Public Health Service which has responsibility for resolving the audits did or did not do a good job and whether or not the quality of the resolution effort was effective. In other words, did the resolution correct the original problem?

Dr. GOLDBERG. Did I understand Mr. Kirschenmann to say that where an audit in the future discloses system deficiencies or lack of adequate documentation, HEW will follow up on a 6-month basis?

Mr. KIRSCHENMANN. Yes; that is correct. We will follow up to make sure the institution does, indeed, conform with the agreement they made with us in putting in the system. That will be no later than 6 months after the date of the agreement.

Mr. STEPNIK. We will still do that. We will still continue to do a quality control check to see how the institution is doing.

Dr. GOLDBERG. Then, if there has been no improvement in that 6-month period, if I understand correctly, HEW is proposing to apply various kinds of sanctions.

Mr. KIRSCHENMANN. My office would certainly recommend them.

Dr. GOLDBERG. This is different from past practice where there was no systematic followup on a timely basis?

Mr. KIRSCHENMANN. I think that is correct, yes, sir.

Mr. FOUNTAIN. I am trying to eliminate a lot of questions which I think we have already covered. We have gotten ahead of ourselves in asking these.

Are you aware of instances where your audits were followed, or preceded, by audits done by CPA's or other auditors at the initiative of the university?

Mr. STEPNICK. Whatever CPA audits that may have been made before or after our audits seldom, if ever, dealt with review of compliance with Federal requirements. In general, the CPA audits that are performed at the universities are balance sheet, income-expense audits similar to those done in private businesses, with no specific attention to the compliance aspects which we look at in our audits.

Under OMB's Circular A-110, which was discussed earlier, there is a requirement for the future that the CPA audits begin to look at the Federal requirements. We are waiting to see how effective that approach will be. Therefore, there has been little experience on that.

Mr. GOLDHAMMER. Can your agency require that? Is there any statutory basis for requiring that schools instruct their CPA's or their accountant firms to devote some time to Federal funds as well?

Mr. STEPNICK. It has become among the uniform administrative requirements under OMB's Circular A-110. Therefore, it does have the force of a legal requirement, sir.

Mr. FOUNTAIN. How long have you had that in effect?

Mr. LASKER. It is included in HEW regulations in title 45, part 74, that were published on August 2, 1978, Mr. Chairman.

Mr. FOUNTAIN. Therefore, you ought to begin getting some results.

Mr. STEPNICK. Yes; if the CPA's, adjunct to their regular audits, can look at the systems and accountability for Federal funds, then I think there is great potential for extending audit resources and getting a higher degree of compliance.

Mr. FOUNTAIN. I was going to ask you—but I guess you cannot tell me in view of what you said—if you could tell us approximately what proportion of such outside auditors' findings agree with HEW findings. I guess you are not in a position to answer that.

Mr. STEPNICK. No. Maybe we will be able to answer that sometime in the future.

Mr. GOLDHAMMER. Will the audits by CPA's of Federal funds be available to you? Is there any requirement which will obligate the university to give you those audit reports if you ask for them?

Mr. BEAUDET. Yes; this is part of the procedure. The audit reports that are issued by the CPA's will be released to the Regional Audit Directors and they will be distributed through our normal reporting processing mechanism with audit control numbers. They will be subject to our followup.

Mr. LASKER. I would make one small point, Mr. Chairman. The audit may not be performed by a CPA firm or public accounting firm. There are circumstances when it may be by the university's own internal audit organization or by the State audit if it is a State university.

Mr. FOUNTAIN. Would there be anything wrong or inhibiting or unnecessarily burdensome in a research project if the university just kept a separate account of all of its Federal research funds? If you have 50, 75, or 100 researchers, I guess they do not want to have separate accounts for them, but at least they could consolidate it and have an accounting or documentation for how those funds are handled.

Mr. KIRSCHENMANN. Each grant award requires a separate account.

Mr. FOUNTAIN. It does?

Mr. KIRSCHENMANN. Universities do maintain that by and large. The problem comes in with those kinds of costs such as salaries which require some kind of an assessment by the individual as to how much

of his time is spent in doing Federal work as opposed to non-Federal work or working on project A as opposed to project B. That is where the problems commence. It is a question of the cost transfers again.

Another problem has been identifying how much researchers actually do as opposed to teaching or other activities. It is common for universities to record just those costs which are going to be reimbursed by the Federal Government as research or by a sponsor as research. They record all other costs as part of their instruction activity with very little documentation about that.

Mr. FOUNTAIN. I think that was a compromise that was worked out on which we made some studies and an investigation a number of years back.

Most of these grant funds are for basic research. In some instances we found they were being used for professors' salaries altogether. If it is going to be used for that purpose, we ought to amend the law to do that. They agreed to prorate the time they engaged in research and the time they spent in teaching.

Mr. KIRSCHENMANN. It is fully appropriate. They need to do that. That is a common practice even in commercial accounting.

Mr. FOUNTAIN. They have to document it?

Mr. KIRSCHENMANN. Absolutely. There is nothing esoteric about that kind of an operation. It is basic accounting.

Mr. FOUNTAIN. I hesitate to name names for fear someone will think unfavorably of some of our fine institutions. However, at page 12 you cite an example of an audit finding relating to the salary and wage cost problem that appeared in an audit report on a major university. Can you identify the university in question?

Mr. STEPNIK. It is the University of Florida at Gainesville.

Mr. FOUNTAIN. In your audits have you found instances where cost transfers were between Federal and non-Federal activities rather than transfers between Federal accounts?

Mr. STEPNIK. Yes, sir.

Mr. FOUNTAIN. I have one more question, Mr. Stepnik.

Have HEW audits found that universities tend to draw down Federal funds through the letters-of-credit arrangement before the money is actually needed to pay bills? If so, how widespread a problem is that? To what use is the money put in the institutions?

Mr. BEAUDET. Yes, we have done some reviews which would indicate this is a problem. We still have some reviews underway so we really cannot tell you the magnitude. All our initial results would suggest that they do draw down substantially in advance of needs. It probably is substantial.

Mr. FOUNTAIN. Would you be able to give us a report on that as soon as your study is completed?

Mr. BEAUDET. Yes, sir; we will provide that for the record.

[The information follows:]

Chairman Fountain asked us to comment on whether the HEW Cash Advance System (DFAFS) study indicated that universities tend to draw down Federal funds through the letter of credit arrangement before the money is actually needed.

Although our study has not been completed, preliminary evidence indicates that many universities do draw down money in advance of actual needs. Of six universities surveyed to date in the DFAFS study, two engaged in this practice. In both of these cases, the universities deposited these funds in interest drawing

accounts. The interest earned was retained by the University, and not returned to the Federal government.

A summary of the preliminary findings of the HEW Cash Advance System is attached.

AUDIT AGENCY PRELIMINARY FINDINGS ON THE REVIEW OF HEW CASH ADVANCE SYSTEMS (DFAFS)

OVERVIEW

As of March 1978, the Department's Federal Assistance Financing System (DFAFS) managed about \$38 billion in outstanding advances to some 14,000 recipients outside the Federal Government. The system provides assistance under grants, contracts, loans and other types of financial arrangements that require cash advances to operate various Federally sponsored programs.

In an ongoing review, HEW auditors are evaluating the adequacy and effectiveness of: (i) DFAFS procedures for controlling and limiting cash withdrawals to recipient need, and (ii) recipients system and controls for determining cash needs and safeguarding Federal funds.

Audit work at DFAFS will include, but is not limited to: (1) examining the adequacy of guidelines established to match draw-downs to immediate needs; (2) determining that the procedures were in operation on a continuing basis; (3) reviewing measures taken to restrict future withdrawals or to return excessive cash balances; and (4) examining the cash balances of those recipients who obtained assistance from financial aid consultants to determine if these recipients maintained excessive cash balances.

Audit work at selected recipients will include (1) examining the adequacy of the accounting records supporting the recipient's cash draw-downs; (2) verifying the accuracy of the cash balance shown on the latest recipient expenditure report; (3) determining if the recipient has excess Federal cash on hand; and (4) determining whether the recipient's accounting system was approved by a Federal agency.

Our field work is not complete, and the results may yet change direction. However, preliminary results have pointed out that:

DFAFS was not consistently applying criteria for determining excess cash. Auditors found recipients with similar cash positions were judged differently (some were said to have excess funds while other were not);

DFAFS was not routinely following up with recipients determined to have excess cash in order to attempt recovery of funds or reduce future withdrawals.

Recipient accounting systems were inadequate for determining (i) Federal funds on hand, (ii) cash needs of Federal projects, and (iii) timing of cash withdrawals to coincide with actual cash disbursements.

Our field work should be completed by mid-October. DFAFS will—as is usual in our audit process—be furnished with a copy of our draft report for comment.

Mr. FOUNTAIN. I want to thank all of you gentlemen for appearing today. You have been very helpful to us in getting a better picture of the situation.

The subcommittee will receive testimony at this time from a group of distinguished academicians representing the colleges and universities which engage in scientific research. We are pleased to have with us Dr. Alexander Heard, chancellor of Vanderbilt University and Dr. Thomas A. Bartlett, both representing the Association of American Universities. Dr. Bartlett is president of that association. We are also pleased to have Dr. Max Binkley, vice president for finance, Colorado State University. He is representing the Committee on Government Relations of the National Association of College and University Business Officers.

I do not want to take anything away from any of you distinguished gentlemen, but I do want to say I had the great pleasure of serving for several years with Dr. Heard on the Advisory Commission on Intergovernmental Relations. That was about 10 years ago. In addition, Dr.

Heard had a very distinguished academic career at my alma mater, the University of North Carolina, Chapel Hill. If I remember correctly, he served as dean of the Graduate School for about 5 years beginning in 1958. Is that right?

Dr. HEARD. That is correct.

Mr. FOUNTAIN. I know he also is a good friend of Bill Friday, a good friend of mine, and president of the University of North Carolina.

We have been very happy to follow your progress, Chancellor Heard, since you were selected to head Vanderbilt University. We are proud that the credit you reflected upon yourself and the University of North Carolina is being continued at Vanderbilt University.

We are delighted to have all of you with us. We will hear first from you, Dr. Heard.

STATEMENT OF DR. ALEXANDER HEARD, CHANCELLOR, VANDERBILT UNIVERSITY, REPRESENTING THE ASSOCIATION OF AMERICAN UNIVERSITIES

Dr. HEARD. Thank you very much, Congressman.

We will get a copy of that and have it published in Nashville, Tenn. [Laughter.]

The Association of American Universities consists of 48 U.S. universities that are associated together because of the scope of the programs they have in research, graduate study, and professional education. Consequently, we are very grateful for the chance to appear before you today because these issues that are being discussed have special importance for us.

There are two other persons with me today who, with your permission, will testify at this hearing. Our efforts to contribute to a better understanding will be divided into three parts.

I will offer some comments on the environment within universities in which productive research occurs and some comments about some problems with reporting practices that, as we know from the previous testimony, have not yet been solved entirely.

Dr. Max Binkley, vice president for finance for Colorado State University, will give his views of the progress universities have made in complying with audit requirements, and of some remaining differences between the Government's needs and the universities' situation.

Then Dr. Thomas Bartlett, who is the president of the Association of American Universities, will discuss proposals that may help us to reach an accommodation in attacking some of these problems.

Each of us plans to give a summary of the testimony that we submitted previously.

Mr. FOUNTAIN. Without objection, your entire statement will become a part of the record for the benefit of the members of the subcommittee and the full committee.

Dr. HEARD. Very good. Thank you, sir.

[See pp. 159-169.]

Dr. HEARD. Those engaged in research very much want federally funded research activities to command the confidence of the country, and especially the confidence of the Congress.

This committee has made it clear that such confidence depends not only on the ultimate substantive results of research grants and con-

tracts, but also on their proper detailed administration. The issues before us are simply how best to accomplish both those objectives. The issues themselves are not simple, but it helps to know, and I think to remember, that Government and university objectives are the same.

In a speech this past April 10, Elmer Staats, the Comptroller General of the United States, said that Government support of research requires us to ask how "appropriate stewardship" and how "adequate accountability of public funds," can be assured without, in his words, "imposing excessive controls, direction, and administrative burden on research grantees that would inhibit freedom of intellectual inquiry and efficient performance of research."

American science is on the whole, I think, second to none in the world. A recent National Science Foundation study found that more than 70 percent of the most significant advances in the fields of astronomy, chemistry, and earth sciences had been achieved by scientists at the Nation's major research universities.

Biomedical research at university medical centers properly gets credit for ridding the world of infantile paralysis, and it is making dramatic progress, I have read recently, against contemporary scourges, including, very importantly, cardiovascular disease. These substantive results constitute one kind of accountability—appropriate stewardship.

The nature of present concern about financial accountability—as something different from appropriate stewardship—is, relatively speaking, new.

How to achieve necessary "financial accountability" without hobbling the "appropriate stewardship" is the question. What are the best methods of administration and recordkeeping for the research partnership of Government and the universities?

Auditing agencies have focused attention mainly on the ways personnel costs are charged to projects financed with Federal money and on transfers of costs between projects. These two matters are complex because universities perform several interconnected functions simultaneously and often their personnel do so too.

The classic case is the professor at a medical school. He performs many functions simultaneously. He teaches several types of students while he is conducting rounds on patients who are under his clinical care, and some of those patients may also be the subject of research projects. It is difficult to decide how much of the professor's salary to allocate to each federally sponsored project, or to patient care or to instruction.

Restricting a scientist's flexibility can exact a price. If the price were simply his convenience, we would be less concerned. The danger may be to the kind of curiosity and instinct for exploration that characterizes the best research scientists.

The matter of cost transfers among projects has also been a source of difficulty. A faculty member may have three grants to support three separately funded medical research projects that he carries out in one laboratory as part of one long-term research program. How to handle such grants in the financially most responsible and efficient manner is not always self-evident.

Some supplies may be used by all three projects but not in precisely the same amounts. Diligent attention to detail can help to keep the

accounting straight, but it is hard to see how to avoid at least some arbitrary allocations and a lot of costly clerical work. Some progress has been made with this kind of complex accounting puzzle, but some problems remain.

We have been glad in our universities to see that both HEW audit officials and NIH operating officials have endorsed the plan to experiment with lump-sum grants—as opposed to cost reimbursable grants, which predominate in both NIH and NSF. Under the proposal for lump-sum grants, budgets in proposals could be subject beforehand to even more serious scrutiny than they now receive. The Government would pay an approved flat sum to the university to cover materials and personnel costs. There would be no post audit of university projects, but universities should expect periodic audits of their financial management systems so that Government can be assured that proper management controls are being exercised.

Regarding the problem of cost transfers, six of our universities, about to be nine, are now conducting an experiment jointly with the National Science Foundation to discover whether the resources of a number of federally supported projects in a single academic department can be combined without reducing fiscal accountability. In the experiment, the NSF delegates to the university authority for shifting funds within a single grant award and between similar projects on condition that such transfers are properly documented.

Mr. Chairman, my colleagues and I in our country's research universities appreciate initiatives taken by Federal agencies to come to grips with the kinds of problems I have mentioned. Our research universities, both State universities like the University of North Carolina and private universities like Vanderbilt, are thoroughly audited for purposes other than those of Federal agencies. Most of them are audited annually. I think these institutions have fully adequate accounting systems for the purposes for which those systems were created.

We fully support in principle responsiveness to the further needs of Government in its support of university research. Government and university officials alike have a common incentive: To satisfy the needs of appropriate stewardship and financial accountability without damaging the research that is the purpose of the public funding in the first place.

Thank you very much for this opportunity to speak.

Mr. FOUNTAIN. Thank you very much for a very meaningful statement in which you point out some of the difficulties involved. I hope this new approach will produce some results.

[Dr. Heard's prepared statement follows:]

ASSOCIATION OF AMERICAN UNIVERSITIES
One Dupont Circle, Suite 730
Washington, D.C. 20036

TESTIMONY ON
NIH GRANTS AND CONTRACTS MANAGEMENT
House Subcommittee on Intergovernmental
Relations and Human Resources

Chancellor Alexander Heard
Office of the President
Vanderbilt University

July 18, 1979

NIH GRANTS AND CONTRACTS MANAGEMENT

House Subcommittee on Intergovernmental
Relations and Human Resources

Testimony: Alexander Heard

Mr. Chairman, members of the Subcommittee, my name is Alexander Heard. I have been Chancellor of Vanderbilt University since 1963. Before that I was Dean of the Graduate School and Professor of Political Science at the University of North Carolina at Chapel Hill. I represent the Association of American Universities. These are 48 U.S. universities that are associated together because of the scope of their programs in research, graduate study, and professional education. I am grateful for the chance to appear before you.

America's research universities receive large amounts of federal grant and contract funds appropriated by the Congress for the conduct of research. The purpose of the appropriations and of the research is to contribute to human betterment. My colleagues and I commend this Committee's support of research and also join in its concern that effective ways be employed by government and universities to ensure proper and productive use of federal research funds.

The first Subcommittee hearings on the management of NIH university grants in 1960 emphasized that tax money for scientific research must be administered as a public trust. Subsequent reports in 1962 and 1967 re-examined issues of fiscal accountability.

In the years since, universities have been subject to a growing body of regulations and procedures as government has sought to meet its responsibility to ensure fiscal accountability--to be sure that recipients of federal research funds use the monies given them in the ways, for the purposes, and with the results intended. The task is not easy. The ultimate benefits of basic research are sometimes difficult to recognize, are often much delayed, and are frequently reached by circuitous, unanticipated routes--but in the long run they are essential to the health, security, and productivity of a nation. Those engaged in research, and others who understand their stake in it, very much want federally funded research activities to command the confidence of the Congress and of the country. This Committee has made it clear that such confidence depends not only on the ultimate substantive results of research grants and contracts, but also on their proper detailed administration. I do not think it melodramatic to say that the extraordinary achievements of the American political system over its two centuries have stemmed to an essential degree from these dual concerns: one, for the successful attainment of public goals expressed through representative government; and, two, for the pursuit of those goals by means that meet expected standards of probity and confidence. It seems to me that the issues before us are simply how best to accomplish both those objectives. The issues themselves are not simple, but it helps to know, and remember, that government and university objectives are the same.

Two other persons are with me today to testify at this hearing.

Our efforts to contribute to better understanding will be divided into three parts. I will offer some comments on the environment within universities in which productive research occurs, and about some problems with reporting practices that have not yet been entirely solved. Dr. Max Binkley, Vice-President for Finance, Colorado State University, will give his views of progress universities have made in complying with audit requirements, and of remaining differences between the government's needs and the university's situation. Dr. Thomas Bartlett, President of the Association of American Universities, will discuss proposals that may help us to reach an accommodation.

In a notable speech this past spring, Elmer Staats, Comptroller General of the United States, said that government support of research requires us to ask how "appropriate stewardship" and "adequate accountability of public funds" can be assured without "imposing excessive controls, direction, and administrative burden on research grantees that would inhibit freedom of intellectual inquiry and efficient performance of research."

Mr. Staats understands, and the universities understand, but perhaps the public does not always fully understand, that appropriate stewardship depends fundamentally and ultimately upon the process known as "peer review." What is the process of peer review? Most research supported by the federal government is so highly specialized it cannot be understood or judged adequately by persons who are not themselves competent in the work in question. The judgment of whether research proposed or research completed is worth society's

investment must always in a uniquely important way rest with persons professionally knowledgeable of what has already been done and of what ought to be done. The criteria for judgment are fairly well established: the importance of the problem posed, the soundness of the ways proposed for studying it, and the achievements and potential of the investigator.

One of my Vanderbilt faculty colleagues who served on an NSF advisory panel in 1977 and 1978 commented that three times a year he spent the better part of three weekends reviewing stacks of grant applications to be discussed later at a Washington-NSF meeting. This kind of professional evaluation is part of the vast review process found throughout the American research communities. And assessment of results is no less thorough by the community of scholars, in the universities, in government agencies, and elsewhere.

In seeking to assure appropriate stewardship of federal research funds, universities and government alike confront the fact that by its nature basic research is difficult to evaluate. Neither its theoretical nor practical applications may be realized for years after the work is completed. The character of scientific inquiry requires researchers to change direction when their data and findings indicate they should do so. Proving an hypothesis wrong can constitute as great a success as proving one right. An expensive project may be the epitome of good science, yet show only negative results. To evaluate competently a searching process at the edges of knowledge, vigorous peer evaluation is essential. Such peer review is the only feasible way to provide effective

control of the quality of research. Even the most knowledgeable specialists are fallible, so the process will not invariably be perfectly performed.

But this is the best way we have found to assure the substantive quality of research supported by federal funds, the best way to discharge the obligation of appropriate stewardship.

American science is on the whole second to none in the world. A recent NSF study found that more than 70 percent of the most significant advances in the fields of astronomy, chemistry, and earth sciences had been achieved by scientists at the nation's major research universities. Biomedical research in university medical centers properly gets credit for ridding the world of infantile paralysis and it is making dramatic progress against contemporary scourges, including cardiovascular disease.

Such results constitute one kind of accountability. Scientists enforce this accountability among themselves through peer pressure.

The nature of present concern about financial accountability--as different from appropriate stewardship--is relatively new. How to achieve necessary "financial accountability" without hobbling the "appropriate stewardship" is the question. What are the best methods of administration and record-keeping for the research partnership of government and the university?

Auditing agencies have focused attention mainly on the ways personnel costs are charged to projects financed with federal money, and on transfers of costs (that is, money) between projects. These two matters are complex because universities perform several interconnected functions simultaneously, and often their personnel do so too. These functions include teaching, research, extension services, consulting services, and patient care in university hospitals. In the major industrial laboratories a scientist may concentrate all of his time and all the facilities of his laboratory on one program. Faculty members are almost always doing several things at the same time. Their facilities are almost always being used for several things at the same time. Yet the system of reimbursement for allowable costs by which the federal government supports research requires that these functions for accounting purposes be separated and charged for separately.

The classic case is the professor in a medical school. He performs many functions simultaneously. He teaches several types of students while he is conducting rounds on patients who are under his clinical care, and some of those patients may also be the subjects of research projects. It is difficult to decide how much of the professor's salary to allocate to the federally sponsored project. Or to patient care. Or to instruction. Similar problems of allocation occur when a professor teaches advanced graduate students primarily by employing them as assistants in conducting federally funded research--a process, incidentally, that greatly strengthens American science. He does not easily know how to separate and document his time and effort each day, or week, or month, for each activity. Detailed requirements

for documentation are especially difficult to comply with when an investigator moves from one activity to another, including from one research undertaking to another. Restricting a scientist's flexibility can exact a price. If the price were simply his convenience, we would be less concerned. The danger may be to the kind of curiosity and instinct for exploration that characterizes the best research scientists.

The matter of cost transfers among projects has also been a source of difficulty. A faculty member may have three grants to support three separately funded medical research projects that he carries out in one laboratory as part of one long-term research program. How to handle such grants in the financially most responsible and efficient manner is not always self-evident. Some supplies may be used by all three projects, but not in precisely the same amounts. Diligent attention to detail can help to keep the accounting straight, but it is hard to see how to avoid at least some arbitrary allocations and a lot of costly clerical work. Some progress has been made with this kind of complex accounting puzzle, but problems remain. Several experiments are underway to try to solve them.

Federal officials and federal agencies are much aware of the problems posed by various accounting requirements. In the speech to which I referred earlier, the Comptroller General said the following:

We in the Federal Government, in regard to basic research, must understand that fiscal accountability is only a means to insure that research is carried out. Such accountability is not

an end in itself. With this in mind, the Government needs to review how standards for accountability are affecting university research. We need to recognize the unique needs of the universities--that accounting standards developed by the Government for nonacademic institutions may not be appropriate for uniform application to universities. Thus, accountability must be achieved in such a way as to minimize controls and time consuming administrative procedures, which can detract from research. For example, the Government should explore simplified procedures to allow university researchers to agree before a project begins on the percent of their time to be allocated to an individual grant. By subsequently only reporting to the sponsor any significant changes to this initial agreement, the researcher may be able to reduce the amount of paperwork involved with timekeeping.

These comments seem to me right on target. The simplified procedure for reporting effort that Mr. Staats describes has been advocated by universities for some years. Thomas Morris, Inspector General of DHEW, is sympathetic to experiments with it. Conversations are underway with HEW officials about conditions for such experiments. The most serious of the financial accounting problems are, indeed, those arising from attempts to report the proportion of effort devoted to particular academic purposes. We have been glad to see that both HEW audit officials and NIH operating officials have endorsed a plan to experiment with lump-sum grants--as opposed to cost reimbursable grants, which predominate in both NIH and NSF. Under the proposal for lump-sum grants, budgets in proposals could be subject beforehand to even more serious scrutiny than they now receive. The government would pay an approved flat sum to the university to cover materials and personnel costs. There would be no post audit of

individual projects, but universities should expect periodic audits of their financial management systems so that government can be assured that proper management controls are being exercised. This form of grant is no guaranteed panacea. Other forms may be better for some purposes. We need to experiment.

Regarding the problem of cost transfers, six of our universities are now conducting an experiment jointly with the National Science Foundation. The experiment is designed to discover whether the resources of a number of federally supported projects can be combined in a single academic department without reducing fiscal accountability. In the experiment, which is co-sponsored by the Association of American Universities, the NSF delegates to the university authority for shifting funds within a single grant award and between similar projects (on condition that such transfers are properly documented).

Mr. Chairman, my colleagues and I in America's paramount research universities are pleased with initiatives taken by federal agencies to come to grips with the kinds of problems I have mentioned. Government and university officials alike have a common incentive: to satisfy the needs of appropriate stewardship and financial accountability without damaging the research that is the purpose of the public funding in the first place. We all have much to do in this world of ours that becomes new every day. Problems abound that will not be solved without highest quality research. It is to the nation's benefit that much of this research be financed by the United States

Government. We must therefore find workable methods of accountability. To perform their obligations to society, universities need government support of research; the government, on behalf of its citizens, needs the results of effective research. The general welfare requires us to work productively together.

Mr. FOUNTAIN. We are going to let Dr. Binkley and Dr. Bartlett testify before we proceed with questions.

Dr. Binkley, you may proceed.

STATEMENT OF DR. MAX A. BINKLEY, VICE PRESIDENT FOR FINANCE, COLORADO STATE UNIVERSITY, REPRESENTING THE COMMITTEE ON GOVERNMENTAL RELATIONS, NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICES

Dr. BINKLEY. I will also summarize the highlights of my written statement.

Mr. FOUNTAIN. Your written statement will be made a part of the record.

[See pp. 173-182.]

Dr. BINKLEY. I represent the Committee on Governmental Relations, which is known as COGR for short. It is supported by 119 member institutions that collectively account for over 90 percent of the Federal contracts and grants of higher education.

COGR has been seriously concerned about the extent of adverse audit comments, the unfavorable publicity, and the adversarial relationship that has developed between the Government and the institutions. It is our earnest desire to bring about an improvement of the circumstances.

In our perception the Government and the institutions have both contributed to the situation, and the joint action of both parties is essential to bring about resolution of the problem.

It is our conviction that the quality of accountability exercised by universities warrants a greater degree of respect than is indicated by the notoriety that has recently prevailed.

The systems utilized by the institutions have provided reasonable assurance that a high proportion of the Federal funds have been used as intended. More often than not, the publicity has ignored the fact that the research and other services have actually been performed and that program accountability exists in peer reviews, program reviews, and technical reporting. The publicity has also overlooked the fact that allegations of misconduct for personal monetary gain have been very few.

The actual crux of the problem is the thoroughness of the record-keeping maintained by universities and the degree of precision which universities have exercised in using Federal funds only within the narrow confines of each individual contract and grant. There have been accusations that at times some of the funds intended for one Government project have been used for another Government project, or that some of the funds intended for a Government project have been used for a nonsponsored institutional activity such as the instruction of students.

Wherever such an incident has actually occurred, it has constituted a violation of the terms of the contract or grant. One of the basic reasons for such occurrences lies in the disparity between the compartmentalization imposed by Government and the indivisible character of the faculty researcher's activity which does not lend itself to compartmentalization. As long as this disparity exists, it seems likely

that we shall continue to encounter problems. If the Government could see its way to relieving the degree of compartmentalization by broadening the scope of the funding awards and by accepting a greater degree of reasonable approximation in costing, a fundamental problem would be alleviated.

Other factors, less fundamental, have aggravated the relationship between the Government and the institutions. In regard to the role of the institutions, the following is to be said:

One: Reputedly there have been isolated cases where Government funds have been used to solve problems of underfunded institutional activities that the Government did not intend to support. It is the position of the organization which I represent that such practice is improper and cannot be condoned.

Two: It appears that some institutions in the past have been slow to make changes in financial management systems that comply with changed standards set by the Government. One reason this occurred was a perceived need to apply scarce resources directly to basic objectives, such as the educational mission, rather than to the administrative function, of the institutions.

Three: Institutional administrators, attempting to reach a balance between insistence by the Government for neat compartmentalization of costs and the resistance of faculty members to alien requirements, have at times adopted measures that were acceptable to neither the Government nor the faculty members.

Actions on the part of the Government also have contributed to the difficulties.

One: The Government has been inconsistent in the application of its standards. From the early 1970's through the mid-1970's, although Government regulations did not change and although there is no indication that institutional practices underwent any significant deterioration, the severity of audit criticism increased substantially. Frequently agency fiscal officials and agency auditors no longer accepted practices which they had previously accepted. In many instances the new criteria came without advance notice and in some cases they were applied retroactively. Sometimes the new criteria went beyond the requirements of the regulations. Institutions found themselves accused of mismanagement for carrying out the very practices that previously went uncriticized.

Two: In the new adversarial environment that developed, institutions came to perceive that some Government agency officials and auditors were taking a denigrating attitude toward the institutions. Their goal seemed to be to prove that something was wrong. Had they been more balanced in their conclusions, had they endeavored to assist institutions in strengthening their systems, instead of decrying the overall quality of management, the problem would not have grown to the current intensity.

In the face of these difficulties, there has been a concerted effort within higher education to upgrade the administration of Federal programs.

At the institutions there has been widespread positive response. Contact with numerous institutions over the past several years indicates that they have been reexamining their practices, redesigning their systems, and implementing strong measures of internal control.

Evidence is given in my written statement on page 6, which reports the results of a current survey on the two matters—payroll distribution and cost transfers—that have received the greatest criticism. It shows that many universities have upgraded their systems, often at their own initiative.

Advent of new Circular A-21 provides an opportunity for a reduction in the extent of adverse audit comments and improvement in the relations between the Government and the institutions. If both parties conscientiously and reasonably adhere to the intent of the new circular, relations should take a turn for the better. There are reasons for hoping that generally this may be the result.

However, the new A-21, unfortunately, contains some inconsistencies and in certain places lacks clarity, aspects which could bring about more disputes.

Moreover, the new document imposes a still greater degree of compartmentalization of costs. In the process it adds significantly greater administrative costs on the institutions.

One feature of the new A-21 well illustrates the difference in concepts of precision and documentation that underlie the disputes between the Government and universities. At the bottom of page 7 and on page 8, my written testimony explains that the Government imposed additional requirements to the monitored workload system of payroll distribution as proposed by the institutions. One of the additional requirements imposed is virtually unattainable. Consequently, in their desire to avoid audit disputes, the institutions are reluctantly foregoing use of the monitored workload system. That system had been conceived to reduce administrative burden, particularly on faculty researchers. Of 268 institutions, only 1 percent plan to use the monitored workload system.

The differences between the Government and the universities in this and other examples lie in the means and not in the ultimate objectives. We fully agree that institutions must be accountable for the public funds they receive, that regulations must exist which set standards, that universities must be responsible for meeting the standards, and that validation of compliance must occur in the form of independent, external reviews.

We hasten to add that the fiscal and audit standards should be made more appropriate to institutions of higher education and that they should be directed more toward reasonableness and less toward a degree of precision that may be unattainable.

In a new joint endeavor we believe that fiscal and audit standards could be developed which provide reasonable accountability, which are attainable, and which are not overly burdensome. To this end, we recommend the creation of a joint task force consisting of representatives of both the Government and the institutions to undertake the development of broad guidelines. The guidelines would then serve as a foundation for the establishment of new fiscal and audit standards, thereby contributing to a renewal of a partnership between the Government and the institutions and to a more effective performance of the research program of the Nation.

Mr. FOUNTAIN. Thank you very much, Dr. Binkley, for a statement that shows us that another side of the coin has been taken into account.

[Dr. Binkley's prepared statement follows:]

STATEMENT OF:

DR. MAX A. BINKLEY
VICE PRESIDENT FOR FINANCE
COLORADO STATE UNIVERSITY

REPRESENTING

THE COMMITTEE ON GOVERNMENTAL RELATIONS
NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

BEFORE THE SUBCOMMITTEE ON INTERGOVERNMENTAL
RELATIONS AND HUMAN RESOURCES
OF THE HOUSE COMMITTEE ON GOVERNMENT OPERATIONS

July 18, 1979

FISCAL ACCOUNTABILITY OF UNIVERSITIES FOR
FEDERALLY SPONSORED RESEARCH

I represent the Committee on Governmental Relations, known as COGR, an organization affiliated with the National Association of College and University Business Officers. COGR is independently supported by 119 research universities that collectively account for over 90 percent of the Federal contracts and grants in higher education. Individuals who are active in the organization consist of institutional financial administrators, research administrators and academic administrators.

COGR has been seriously concerned about the extent of adverse audit comments on the financial management systems of universities, the unfavorable publicity that has resulted and the adversarial relationship that has developed between the Federal Government and institutions of higher education. We wish to do everything possible to bring about an improvement of the circumstances.

In our perception the Government and the institutions have both contributed to the situation and the joint action of both parties is essential to bring about resolution of the problem.

It is our conviction that the quality of accountability exercised by universities warrants a greater degree of respect than is indicated by the notoriety that has recently prevailed. Publicity alleging scandal and malfeasance creates an inappropriate public impression over issues which principally involve questions of accounting precision and documentation.

177

The systems utilized by the institutions do provide reasonable assurance that a high proportion of the Federal funds have been used as intended. More often than not, the publicity has ignored the fact that the research and other services have actually been performed and that program accountability exists in peer reviews, program reviews and technical reporting. The publicity has also overlooked the fact that allegations of misconduct for personal monetary gain have been very few. Never has that aspect been a major problem in the program. With exceptions that have been extremely rare, the Federal funds have only been used in the public interest which universities serve. These statements are intended not to suggest an absence of a real problem but to put the matter in a realistic perspective.

The actual crux of the problem is the thoroughness of the record-keeping maintained by the universities and the degree of precision which universities have exercised in utilizing Federal funds only within the narrow confines of each individual contract and grant. There have been accusations that at times some of the funds intended for one Government project have been used for another Government project, or that some of the funds intended for a Government project have been used for a non-sponsored institutional activity such as the instruction of students.

Wherever such an incident has actually occurred, it has constituted a technical violation of the terms of the contract or grant. At any given point of time a typical major research university has in excess of a thousand different Government projects, each represented by a separate contract or grant. Each is a separate fiscal entity standing alone. Each award intends that every dollar of expenditure assigned to a project represent a cost benefiting that project. More graphically, the situation can be described by stating that at each major research university there are in excess of a thousand different compartments and each dollar of cost is expected to be accurately assigned to the right compartment.

The structure of the Federal research program consists of multiple, frequently short-term, separate agreements, each for a certain phase of endeavor. This structure in many respects is inherently incompatible

with the nature of the activity of the individual faculty researcher. His or her activity often does not lend itself to neat compartmentalization. Commonly the activity of the faculty researcher includes teaching at the graduate level which itself involves research. Often he or she performs teaching and research and perhaps a third function, at the very same time. Frequently multiple research projects of the same faculty researcher are intertwined. So much of the faculty researcher's involvement is in such joint activity that a segregation of effort and costs into neat compartments for purposes of accountability is incongruous and forced.

To that point must be added another fact of life at a research university. A scientist is deeply engrossed in the pursuit of new knowledge in his or her field of specialization, with the result that efforts toward precision in costing are disruptive and burdensome and constitute an impediment to the accomplishment of the ultimate objectives.

Consequently, a fundamental defect in the structure of the joint research effort of the Government and universities is the disparity between the compartmentalization imposed by the Government and the indivisible character of the faculty researcher's activity which does not lend itself to compartmentalization. As long as this disparity exists, it seems likely that we shall continue to encounter problems. If the Government could see its way to relieving the degree of compartmentalization by broadening the scope of the funding awards and by accepting a greater degree of reasonable approximation in costing, a fundamental problem would be alleviated.

Other factors, less fundamental, have aggravated the relationship between the Government and the institutions. In regard to the role of the institutions, the following is to be said:

1. Reputedly there have been isolated cases where Government funds have been used to solve problems of underfunded activities that the Government did not intend to support. It is the position of the organization which I represent that such practice is improper and cannot be condoned.

2. It appears that some institutions in the past have been slow to make changes in financial management systems that comply with changed standards set by the Government. One reason this occurred was a perceived need to apply scarce resources directly to basic objectives, such as the educational mission, rather than to the administrative function, of the institutions. It should be noted that on the one hand universities were asked to expend more funds on administration and on the other hand they were criticized because of increasing indirect costs.

3. Institutional administrators, attempting to reach a balance between the insistence by the Government for neat compartmentalization of costs and the resistance of faculty members to alien requirements, have at times adopted measures that were acceptable to neither the Government nor the faculty members. The self-ruling character of a university makes difficult the effective imposition of administrative regimentation. Faculty members have major roles in the appointment and survival of their administrators. Consequently, administrators must continually strive for a precarious balance between pressures brought to bear by external forces and pressures brought to bear by internal forces. In such circumstance, resorting to autocratic dictates is often self-defeating. This difficulty is compounded by the fact that in a number of respects the administration of research is necessarily decentralized in the institutions and by the fact that faculty researchers necessarily exercise substantial independence in their mode of operation.

Actions on the part of the Government also have contributed to the difficulties.

1. The Government has been inconsistent in the application of its standards. From the early 1970's through the mid 1970's, although Government regulations did not change and although there is no indication that institutional practices underwent

any significant deterioration, the severity of audit criticism increased substantially. Frequently agency fiscal officials and agency auditors no longer accepted practices which they had previously accepted. They applied new interpretations and sometimes they imposed requirements which went beyond existing regulations. At times they applied new standards retroactively without advance notice. Institutions found themselves accused of mismanagement for carrying out the very practices that previously were accepted. Naturally the institutions claimed that the Government was unfair.

2. In the new adversarial environment that developed, institutions came to perceive that some Government agency officials and auditors were taking a denigrating attitude toward the institutions. Their goals seemed to be to prove that something was wrong. In some instances auditors failed to acknowledge that an institution had on its own previously uncovered a deficiency and had taken remedial steps. At times in their comments auditors overemphasized findings that were isolated and relatively insignificant. They took positions that were perceived by the institutions as unwarranted by the overall circumstances. Had those agency fiscal officials and auditors been more balanced in their conclusions, had they been more constructive in their approach, had they endeavored to assist institutions in strengthening their systems instead of decrying the overall quality of management, the problem would not have grown to the current intensity.

In the face of these difficulties, there has been a concerted effort within higher education to upgrade the administration of Federal programs. In workshops and symposiums, in published articles and newsletters, in messages from heads of the associations, the theme has repeatedly been emphasized that institutions must be alert to any substandard practices and any deficiencies, and that they must, on their own initiative, take prompt steps to remedy them wherever they exist.

At the institutions there has been widespread positive response. Contact with numerous institutions over the past several years indicates that they have been reexamining their practices, redesigning their systems and implementing stronger measures of internal control. That this is so is shown in the results of a current survey on the two matters --payroll distribution and cost transfers--that have been subjected to the greatest criticism.

Of 97 COGR member institutions responding to a questionnaire, 56 percent reported that within the last five years they had made significant changes in their systems of payroll distribution for the purposes of strengthening compliance with the regulations or for the purposes of satisfying federal officials. An additional 18 percent said changes had been planned which are either not ready for implementation or are being deferred until they can be implemented with the modifications required by the new A-21. Of those institutions which have implemented significant changes, 39 percent reported that the changes were self initiated without being required specifically at the individual institutions by federal officials, and another 41 percent said the changes were partially self initiated and partially required by the government. Only 20 percent attributed the changes exclusively to federal officials.

With respect to cost transfers, of 97 institutions responding, 91 percent reported that within the past five years they had increased control measures to better assure that transfers are proper and are adequately justified and documented. Of those institutions so reporting, 49 percent said the changes were self initiated and an additional 40 percent said the changes were partially self initiated and partially required by the government. Only 11 percent attributed the changes exclusively to government officials. These figures demonstrate notable diligence by universities, much of it self initiated.

On March 6, 1979 revised costing principles, designated as OMB Circular A-21 were issued, to be implemented with each institutional fiscal year beginning after October 1, 1979. Throughout universities significant work is presently underway to prepare for implementation. The attention being given to the new requirements is indicated by the

fact that four symposiums given by COGR in various cities were attended by 535 individuals from 268 institutions.

Advent of the revised principles provides an opportunity for a reduction in the extent of adverse audit comments and improvement in the relations between the Government and the institutions. If both the institutions and the Government conscientiously and reasonably adhere to the intent of the new Circular, relations between the parties should take a turn for the better.

There is reason to believe that most institutions will do a competent job of implementation. They want to avoid reliving the experiences of the past. They are on notice as to what the new requirements are. This time they have received notice in advance. Institutions know that changes are necessary and they are given time to make the changes. There is reason also to be hopeful that Government officials welcome the opportunity to apply the new criteria and avoid repetition of the past.

However, the new A-21 contains some inconsistencies and in certain places lacks clarity. Those parts may lead to the creation of new disputes or the continuation of old disputes.

More over the new document imposes a still greater degree of compartmentalization of costs. In the process it adds significantly greater administrative costs on institutions, which will tend to increase the burden on the scarce institutional resources available for administration and on the share of administrative costs borne by the Government as indirect costs.

One feature of the new Circular A-21 well illustrates the difference in concepts of precision and documentation that underlie the disputes between the Government and universities. In the process of revising the Circular, the Government invited higher education to propose an alternative system of payroll distribution which would not be encumbered by the immense paperwork required under the personnel activity reporting system of after-the-fact certifications--a system which is administratively burdensome, particularly on faculty researchers. The institutions

proposed the monitored workload system, a method of predetermining payroll distribution based on assigned workloads, similar to internal budgeting systems which most institutions already utilized. The system would require continuous monitoring to assure that any significant changes in planned workloads would be recorded. In the proposal made by higher education, only significant changes in the predetermined distribution would have to be recorded in the monitoring process. At that time a survey of 81 institutions indicated that 52 percent would adopt the method throughout their institutions and an additional 31 percent would adopt the system in certain organizational units.

But in Circular A-21 the Government made several changes in the system as proposed by the institutions. The most noteworthy change was to require that all changes in workload had to be recorded and then only those changes that were significant would be entered into the accounting charges. Insignificant changes to workload occur daily, perhaps even hourly. Requirement for the notation of all minor variations in activity is virtually unattainable. Yet failure to maintain such a record and to preserve it for audit could, under the wording of A-21 lead an auditor to report an adverse finding on the payroll distribution system, claiming that the required documentation of monitoring is missing.

Another change made by the Government was to limit use of the monitored workload system to only professional employees. For non-professional employees, the personnel activity reporting system must be used. Use of the monitored workload system would therefore entail the use of two different systems within a department, an arrangement that would be complex, awkward and difficult to manage.

Consequently, instead of most institutions adopting the system as they originally indicated they would do, the overwhelming choice now is to use the personnel activity reporting system with which neither the Government nor the universities have been satisfied. In the survey taken of the 263 institutions represented at the recent symposiums, only 1 percent indicated that they planned to use the monitored workload system; 90 percent indicated that they would not use it; and 9 percent were undecided. The overzealous attempt by the Government to refine the

system has evidently brought its defeat. To the credit of the institutions, they have recognized the pitfalls inherent in the modifications made by the Government and, in their desire to avoid audit disputes, they have reluctantly chosen to use the more cumbersome personnel activity reporting system.

After observing these and other developments and evaluating their effect on the relationship between the Government and universities, we have concluded that the differences between the parties lie not in the objectives but in the means of accomplishing the objectives. The objectives of the universities are consistent with those of the Government:

- That the fiscal and administrative controls should be those that create a minimum interference with the performance of research and service.
- That there should be adequate accountability.
- That the administrative process should be adequate but not excessively burdensome and costly.

As stewards of public funds, universities must be accountable for them. Regulations must exist which provide the minimum standards to be followed. Universities must carry the responsibility of meeting the standards. Validation of compliance with the standards must occur in the form of independent external reviews.

Having said that, we hasten to add that the fiscal and audit standards should be made more appropriate to institutions of higher education and they should be directed more toward reasonableness and less toward a degree of precision that may be unattainable. They should be directed more toward the prevention of significant abuse and less to an attempt to assure that each dollar positively gets into exactly the right compartment.

We believe that in a new joint endeavor fiscal and audit standards could be developed which provide for reasonable accountability, which

are attainable and which are not overly burdensome. Toward this end we recommend the creation of a joint task force, consisting of representatives of both the Government and the institutions, to undertake the development of broad guidelines. The guidelines would then serve as a foundation for the establishment of new fiscal and audit standards which contribute to a restoration of a spirit of partnership in the relations between the Government and the institutions and to a more effective performance of the research program of the nation.

Mr. FOUNTAIN. Dr. Bartlett, you may proceed.

**STATEMENT OF DR. THOMAS A. BARTLETT, PRESIDENT,
ASSOCIATION OF AMERICAN UNIVERSITIES**

Dr. BARTLETT. Thank you very much for this opportunity to summarize my written testimony.

Mr. FOUNTAIN. Your prepared statement in its entirety will be made a part of the record.

[See pp. 186-194.]

Dr. BARTLETT. The issues that bring us here today appear to be arguments over the efficiency and effectiveness of accounting and auditing, but our difficulties with audits are largely symptomatic. Our underlying problem is the frequent awkwardness in the match between, on the one hand, what we do and do very well in our federally funded university research and on the other hand, the funding and accounting techniques that we use.

We are carrying on long-term, basic research programs in facilities administered by universities where teaching, training, and research are blended, but our funding and auditing techniques are based on compartmented, short-term project grants awarded not to universities but to individual investigators and providing reimbursement for documented project costs.

The scientific results are strong. The system works. The accounting is a headache.

Of course, universities need to be fiscally accountable. The American people must be confident that Federal funds are spent as Congress intended.

We have come a long way since this committee held its first hearings on university accountability in 1960. The major universities have doubled and tripled the size of their business office staffs, and nearly every operating unit at each university has been drawn into the process of reporting on the cost of materials and personnel.

To increase fiscal accountability, to get the last measure of precision, we can go in one of two directions. We can simply do more of what we are doing—hire more auditors, make more rules, develop larger accounting staffs both in universities and in Government agencies—or we can examine the system itself and seek improvements.

Are there other rules that would provide for accountability and a better fit of university research, therefore being both less intrusive and less costly? That is the question.

The cost of steadily expanding present efforts to enforce existing audit rules will be exorbitant. As we hire more auditors in Government agencies to spend more time auditing more university accounts under existing rules, we produce a parallel response in universities. Universities must hire more auditors to deal with the Government auditors.

They must hire more administrators to record and document costs in more detail. They must require more paperwork by research scientists. They must—and this is critical—separate conceptually or even literally teaching from research so that the cost of each can be isolated and documented. Documentation is the heart of the matter.

Of course, we can have total fiscal accountability if we are prepared to accept the costs in money and the lowered productivity. The better way would be to embrace accounting practices that make fiscal accountability less contentious and less costly in money and creativity.

But we are not going to agree on new accounting practices very easily. In these strident and adversarial times there is understandably a fear of risks. The aura of suspicion works in the other direction. Experimentation and adaptation need encouragement. Indeed, they may even need to be mandated by the Congress.

In that connection let me call attention to the Health Sciences Promotion Act of 1979, introduced in the Senate by Senators Kennedy, Schweiker, and Williams. It would require the Director of NIH to experiment with certain funding practices.

I would hope that the experimental approach advocated by Senators Kennedy, Schweiker, and Williams might commend itself to this committee and, indeed, to the administration.

One example already mentioned where improvement seemed readily at hand is in a monitored workload system of effort reporting. Effort reporting clearly is one of the sore points.

The monitored workload system has been advocated by Mr. Staats of the GAO and is very much desired by university research administrators, as Dr. Binkley pointed out just a moment ago. We understand now that HEW may be prepared to experiment with such a system.

Another example of potential improvement would be the grouping of grants so that they can be administered more efficiently as a coherent program. In that connection, as has been reported, six—actually soon it will be nine—universities have begun an experiment with NSF that would group related projects for the purpose of administration in chemistry departments. Mr. Pilorinos of NSF has prepared a statement describing that experiment which I would hope will be added to the record of the committee.

Other experiments that are well worth the effort include fixed price grants and decentralized grant making as in the present university materials research centers. These experiments may show that we can reduce the causes of disputes and deal with the symptoms.

Finally, let me mention two promising developments. One is the Federal Grant and Cooperative Agreement Act of 1977, which in part is a product of the House Committee on Government Operations. The act was adopted in response to a report of the Commission on Government Procurement. It requires OMB to determine the feasibility of a system of guidance for Federal assistance programs as distinct from Federal procurement programs. That may be a vital distinction.

And tomorrow, Mr. Chairman, Dr. William Sewell will report to you on an independent national commission now at work reviewing the mechanisms and the procedures by which the Federal Government supports academic research. That commission is the result of mutual efforts among leaders of several Government research funding agencies and spokesmen from scholarly and academic associations.

Because you are going to hear from Dr. Sewell tomorrow, I will not describe the commission, but it is one more important opportunity to get beyond the disputes over auditing and accounting and to work out some of the causes that produce these disagreements.

In that effort, Mr. Chairman, I would hope the Congress, the funding agencies, and the universities cease in any way to be adversaries and, indeed, are all united.

I will stop here because I know we are all eager to get to the questions.

[Dr. Bartlett's prepared statement follows:]

ASSOCIATION OF AMERICAN UNIVERSITIES
One Dupont Circle, Suite 730
Washington, D. C. 20036

TESTIMONY ON
NIH GRANTS AND CONTRACTS MANAGEMENT
House Subcommittee on Intergovernmental
Relations and Human Resources

Thomas A. Bartlett, President
July 18, 1979

Mr. Chairman, members of the Subcommittee, I am Thomas A. Bartlett, President of the Association of American Universities.

Chancellor Heard has described some of the problems universities face when they manage federal grant funds; Dr. Binkley discussed what we believe to be auditing excesses, and it is my task to describe our hopes for the future.

During my testimony, I will describe certain remedies we seek that will help us document university fiscal accountability. I will also draw the Committee's attention to S.988, a Senate bill that would establish certain needed experiments in the search for better accounting rules, and to the promise that the Federal Grant and Cooperative Agreement Act of 1977 (PL 95-224) may hold.

Each of our universities seeks to be accountable above all for the quality of science produced in our laboratories, but also for the way we manage federal funds. We intend to be accountable because we believe that the American people deserve to know that their tax money is responsibly spent. The remedies we seek are changes in certain federal accounting rules. We consider two of these of particular importance: first, adoption of the monitored workload system as a fully acceptable means for documenting effort devoted to federally-sponsored agreements; second, permission to group related grants for the purposes of administration.

Monitored Workload

Chancellor Heard, and Mr. Staats in his speech quoted by Dr. Heard both support the use of the monitored workload system for reporting on effort devoted to federally-sponsored projects. The monitored workload is based on budgeted or assigned workloads, monitored to assure that any significant changes are recorded.

During discussions with the government on revisions to OMB Circular A-21, the Committee on Government Relations (COGR) of the National Association of College and University Business Officers, presented the university proposal to HEW and OMB. We are grateful that OMB included large portions of the proposal in the new A-21. Unfortunately, certain other features were included that probably will deter widespread use of the system: first, OMB does not permit the use of the monitored workload for non-professional personnel; second, OMB deleted the word "significant" in describing changes in workload that would have to be documented; and finally, the OMB version does not permit after-the-fact surveys to capture faculty administration and cost-sharing for the purpose of establishing indirect cost rates. (We have given committee staff a copy of our proposal for a monitored workload.)

The Master Grant Approach

Government permission is needed to permit the grouping, for purposes of administration, of individual research grants into a single entity called a master grant. Such a master grant would make available to the investigator the option

of interchanging funds as necessary and appropriate to carry out most efficiently the work under related grants or for grant projects in the same academic department.

Present constraints force investigators to treat each grant as a distinct entity, whose costs must be kept separate from those of other grants. These largely artificial boundaries arise from the assumption that grants are by definition discrete projects which should be kept separate from other projects in the same laboratory or academic department. While in some cases there are very real differences in the work done under different grants, in many cases the investigator views his research as an overall program, which is broken down into separate pieces with different titles for funding purposes. It is extremely difficult to document very precisely, as the auditors demand, appropriate portions of people, supplies, equipment, travel, and so forth on each grant.

Master grants which would permit the grouping of related projects could solve most of these problems. As Chancellor Heard mentioned, six universities are now conducting an experiment with NSF to try out this approach.

In addition to the master grant approach mentioned above, which is the principal subject of the experiment that some of our institutions are conducting with the help of the National Science Foundation, I would like to call the attention of the Committee to legislation introduced by Senators Kennedy, Schweiker, and Williams that would require the Director of

NIH to experiment with the various accounting rules I have described. The bill is "The Health Science Promotion Act of 1979" (S.988). When he introduced the bill, Senator Kennedy said:

I think it is time we give serious thought to finding ways to reduce the paperwork burdens on our researchers while maintaining adequate accountability. Title III directs the NIH to undertake experiments in this area with specific emphasis on developing better ways to monitor the outputs of research rather than the process through which the research is undertaken. The main point is this: The public is undoubtedly more concerned with knowing that it is getting value for money in supporting research than with knowing that each penny is spent according to some precise ad hoc plan. Research, after all, is an inherently unpredictable exercise. Flexibility is essential in taking advantage of unanticipated developments. Researchers should ultimately be judged on whether or not they produce an adequate research product. That is the bottom line. Whether it is possible to develop a realistic monitoring system with that orientation remains to be seen. But it certainly seems worth trying on an experimental basis.

We think that Mr. Kennedy's position is both intellectually sound and eminently practical. It may be that existing OMB accounting rules are the best that we can get, but we believe we should investigate other possibilities that would permit us to account properly to the American people under rules that are more consistent with university organization and the research process. The experimental approach advocated in the Senate bill is certainly a reasonable way of finding out.

Mr. Chairman, members of the Committee, Chancellor Heard has expressed our gratitude for the Committee's interest in

resolving the differences between government agencies and the universities. I hope the Committee will consider a legislative initiative like that in S.988. What better way to bring us together than to examine the accounting rules closely and test new and potentially better ways of providing for fiscal accountability?

In the foregoing I have attempted to describe certain changes in federal accounting rules which, when combined with increasing experience on the part of all those involved, will enable all parties to be more satisfied with our system for fiscal accountability. I want to turn now to the Federal Grant and Cooperative Agreement Act of 1977 (PL 95-224) which was, in part, a product of the House Committee on Government Operations.

The Federal Grant and Cooperative Agreement Act was adopted initially as a result of a report of the Commission on Government Procurement and after consideration by the House Committee on Government Operations. The Commission report drew attention to the confusion between grant-type relationships and federal procurement relationships.

Federal grant-type activities are a vast and complex collection of assistance programs, functioning with little central guidance in a variety of ways that are often inconsistent even for similar programs or projects. This situation generates confusion, frustration, uncertainty, ineffectiveness, and waste. This disarray can be traced to three basic causes:

- Confusion of grant-type assistance relationships and transactions with procurement relationships and transactions:

- Failure to recognize that there is more than one kind of grant-type relationship or transaction;
- Lack of Government-wide guidance for Federal grant-type relationships and transactions.

(Report of the Commission on Government Procurement, Volume 3, Part F, Introduction, page 153, December 1972.)

The Senate Committee report (Report No. 95-449) on the bill cites the need to reform federal spending practices:

Section 2(b) says that the purposes of the bill are: to characterize Federal/non-Federal relationships in the acquisition of property and services and in the furnishing of assistance by the Federal Government so as to promote a better understanding of Federal spending and help eliminate unnecessary administrative requirements on recipients of Federal awards; to establish government-wide criteria for the selection of appropriate legal instruments, a clearer definition of the relationships they reflect, and a better understanding of the responsibilities of the parties; to promote increased discipline in the selection and use of contracts, grant agreements, and cooperative agreements; to encourage competition, as appropriate, in the award of contracts, grants, and cooperative agreements; and to require a study of Federal/non-Federal relationships in Federal assistance programs that should lead to the development of a comprehensive system of guidance for Federal assistance programs.

The law was adopted in order to cope with problems the government and non-government agencies face in the process of implementing programs that are mandated by the Congress. Federal agencies have just begun to implement the law, so some of the disarray to which the Procurement Commission drew attention continues and is reflected, we believe, in some of the differences that continue to irritate the government-university relationship.

The principal promise of the new law lies in the study of federal assistance programs that it mandates. The law requires OMB "to determine the feasibility of developing a comprehensive system of guidance for federal assistance programs." Existing federal accounting requirements are, perhaps, appropriate for procurement relationships between the federal government and universities or other providers, but they may be inappropriate for the assistance relationships that characterize federal support of university science. The guidance for federal assistance that may result from the OMB study should produce fiscal accountability requirements more suitable to the university.

In my testimony so far, I have asked the Committee to examine certain changes that we propose in federal rules with which we are required to comply; I have asked the Committee to endorse the provisions of Title III of S.988 (Reduction of Paperwork), and I have drawn the Committee's attention to the promise of the Federal Grant and Cooperative Agreement Act.

Finally, Mr. Chairman, I would like to inform the Committee of another important initiative in the attempt to improve the relationship between the government and the research universities. Last year an independent national commission was established to review the mechanisms and procedures by which the federal government supports research in universities. It was the result of conversations and consultations among leaders of several governmental research funding agencies and spokesmen from scholarly and academic associations. Members of the Commission

were appointed late last summer, and its work has been funded by a group of philanthropic foundations. The major governmental funding agencies, the GAO, OMB, and the President's Science Advisor have assigned liaison persons to work with the Commission. I understand that you will have testimony from a senior member of the Commission tomorrow.

The Commission has said that its principal work will be completed some time this winter. Perhaps this Committee might wish to hear the Commission's recommendations and to discuss them critically. You, sir, and this Committee have had an important influence on our understanding of fiscal accountability. There is no more appropriate audience for the Commission's findings.

I appreciate the opportunity you have given me to testify.

Mr. FOUNTAIN. I thank all three of you for pinpointing the other side of the coin and the problems which universities have in trying to comply with the rules and regulations of the Federal bureaucracy.

I was looking at the statement which Senator Kennedy, with whom I sometimes agree, made in connection with the Health Science Promotion Act of 1979. That statement is about trying to have a proper balance to be sure we get the research without an unreasonable amount of unnecessary and excessive regulation.

At the same time, we need to come to some meeting of the minds to find a way to have reasonable accounting that can satisfy the accountants and the general public that while we are doing these good things, we are doing as many of them as we can with the money we get and not wasting anything. That is absolutely essential.

I would agree with Chancellor Heard that we have made tremendous progress in this country. Without our research programs, I do not know where we would be. I guess it is better, if we had to have it, that we made the progress along with some waste and extravagance, and occasionally some dishonesty here and there, rather than not to have the research programs at all.

I think we can find ways to be sure that the money is spent for the research purpose for which it is intended, and less is wasted in unnecessary bookkeeping or for other purposes. Then we will get more research accomplished, and, ultimately, research will get a better image.

I find it a tall, if not impossible, order for the subcommittee to discuss your three very substantive statements in the time available this morning. In retrospect, we should have allocated a full morning for this purpose. I am delighted we got Mr. Stepnick's statement yesterday before beginning his questioning.

Under the circumstances, we will do the best we can to open the dialog today on some of the more basic issues involved in the Government-university research relationship. Then, perhaps, we can arrange a further meeting to pursue this very important matter in more detail.

I want to say at the outset, Dr. Bartlett, that I certainly intend to study S. 988, to which you referred, to see whether I, and perhaps other members of the subcommittee, would want to sponsor this legislation in the House. Carefully examining new approaches in an experimental setting is certainly a desirable way of finding out whether they work or are suitable for wide application.

Perhaps we will never find a precise and perfect answer to this rather complex situation involving so many factors, such as, for example, the situation where one person has seven or eight research grants and must document the allocation of time and funds among them.

Chancellor Heard, I can appreciate your statements about the importance of peer review in NIH and other science support agencies. This is something that, as has been pointed out, has been given a great deal of attention in past years by this subcommittee in its review of the operation of NIH study sections and advisory councils. Based on our past studies, I share your judgment that "peer review is the only feasible way to provide effective control of the quality of research." I anticipate in this connection that the subcommittee will seek information on whether the peer review system can be made to operate even more effectively when we resume hearings on NIH grants management, possibly later this year.

When this subcommittee examined the management of NIH programs in the early 1960's, I got all sort of calls from some of my friends at the University of North Carolina and Duke after we held our first hearings. They were fearful their institutions would lose some Federal funds as a result of our inquiry. I do not think that happened.

When I went down to Duke with Dr. Goldberg at the initiative of my friend, Dr. Roy Parker, and explained to some 25 university representatives, I think they had a better understanding of what we were doing and the purpose of our investigation.

Those hearings were the first oversight hearings held by the Congress to review and evaluate the way in which the NIH programs were being administered and to determine the extent to which there was accountability.

As ironic as this may seem, the whole subject of grants management, and the problem of fiscal accountability, arises largely because of the Government's use of peer review. Peer review, as you know, results in the decision to support the discrete research project described by a scientific investigator, or group of investigators, and no other activities at his institution. However, desirable it might be to design other, more comprehensive, methods of research support—and I believe you alluded to this in referring to experimentation with lump sum grants—the peer review system today is directed essentially to the support of individual research projects.

This being the case, it appears that the integrity of peer review requires that the universities maintain adequate records to demonstrate that the funds intended for a particular project are used only for that project, as designated by the awarding agency, and for no other purpose, however meritorious.

Dr. Heard, do you and the Association of American Universities share the view I have just expressed about the necessity of assuring that funds awarded for research projects, insofar as humanly possible, are used only for those projects?

Dr. HEARD. Let me make a comment if I may and then maybe Dr. Binkley or Dr. Bartlett would like to comment.

Mr. FOUNTAIN. I am not saying that is the best system. Maybe it ought to be changed. I do not know.

Dr. HEARD. Peer review does function as you described to determine in a competitive system which applications, among many that come in, are most likely to be productive in producing results that have been generally sought by the Congress through appropriations and more precisely defined by Federal agencies. The scope of research that may result from peer review projects can vary greatly from one to the other. The scope can be quite broad in some cases and quite narrow in others. The principle of peer review can apply to activities, decisions, competitive applications, and research projects of quite varying scope, dimension, longevity, and purpose.

I do not think any one of us would feel that just because a research activity was funded by the U.S. Government that therefore another research activity also funded by the U.S. Government has a purpose that is so common to it that you can mix up funds without inquiring about it. I do not think that would be our view.

I think our view would be that where you have a laboratory, a research center, addressing a major clinical condition or pathological

condition—for example, a research center concerned with diabetes or some other condition that the Nation as a whole has decided it wishes to attack—when you have related research activities going on in one place, often by one person, then there is often overlap that makes the activities going on in project A appropriate to project B and project B appropriate to project C or project A.

What is needed is a reasonable approach to determining how precise the accounting ought to be. In other words, I think there are some research activities that are sufficiently common in purpose that that commonness must be recognized when we are assessing how crucial the problem of cost transfers is.

The other statement that we made is related to your question although not precisely on your question. The concern some university people have felt has been that in allocation of personnel time often allocations have to be arbitrary. It is not anyone's unwillingness to be precise, or a disinclination to follow the instructions that come with Federal money, but there is an unavoidable degree of arbitrariness.

In my university, as I understand it, in the medical school my colleagues make a monthly estimate of how much time they spend for particular purposes. There is a degree of arbitrariness in that. Some of my own people have argued that it misrepresents the case. It is not that anybody wants to misrepresent it. But you put down figures and they give an impression of precision that really is not present, and which impression those who put down the figures do not intend to give. That issue, plus the loss to research effort, time, and, enthusiasm that may be involved in the kind of detailed accounting we are speaking of, those are the two difficulties.

The individual researcher, as Dr. Bartlett pointed out, is himself, really in fact a recipient of the grant rather than the institution. The institution is the necessary vehicle but the award goes to the individual because of his promise and achievement. That individual is very jealous of his time and very jealous of the qualities that led him to get the grant in the first place. Therefore, he is concerned about the general ethical question of how precise he can be with the best of intentions and, second—another sort of ethical question—how well he is using his time for the purposes intended by the appropriation in the first place.

I think my friend Dr. Binkley here is able to speak to this with considerably more detail and experience than I am. If you would like him to respond, I am sure he will be glad to do so.

Dr. BINKLEY. I concur with everything Dr. Heard has said. However, I have lost track of what the question is now. [Laughter.]

Dr. HEARD. The question is this: After all, a research project that originates in a congressional appropriation and flows through an agency has been made for rather carefully defined objectives. The award has been made by a peer review process that assumes that those objectives are the ones to be pursued and certain methods are to be followed in pursuing them by particular people.

The question then is: Given that specification, is not that concept in conflict with any effort at all to erode the precise boundaries of the grant in the first place? Isn't that the question?

Mr. FOUNTAIN. Yes.

Dr. BINKLEY. That certainly is true. What we have formed are neat compartments independent of each other. Each is a separate fiscal entity. The accounting is intended to be precisely that way while the actual circumstances are broader than that and are all enveloping in a principal investigator's area.

Dr. BARTLETT. If I may, I would like to make a comment.

In the course of this morning the term "cost transfers" has been used to cover all manner of things. I think it is vital to make some distinctions within that term.

For example, the term "cost transfers" has been used to apply to a situation in which funds would be transferred from a peer reviewed Federal grant to another purpose in the university. The term "cost transfers" has been used to talk about the transfer of funds from one project to another by an administrator without a principal investigator's knowledge. The term "cost transfers" has been used to apply to transfers between two projects of the same investigator in the same program area. "Cost transfers" has been used to apply to transfers between two projects by a principal investigator when the projects are essentially unrelated. The term "cost transfers" has a very, very different meaning in each case and yet if we follow the rules, each is improper.

Yet, one of those kinds of cost transfers where an investigator transfers funds between two very similar projects, is eminently desirable. To forbid it flies in the face of common sense, good judgment, good practice, and efficiency.

With the help of experience and experimentation we can define different types of cost transfers and support some and forbid others. It is patently necessary to support certain kinds of cost transfers, for example when an investigator is carrying three, four, or five research projects in related fields in the same laboratory as part of one long-term program where he has overlapping at every point.

To require that he act as if he were three, four, or five people in three to five different worlds is improper. We have always been thought of as being practical and sensibly administering people. Impractical accounting practices fly in the face of our reason.

That is not to say that there are other kinds of cost transfers which are not completely improper and which should be prevented and which none of us would want to support in any way.

May I add one other comment? I think it is very important to understand that we are arguing now about procedures—not waste or corruption. The issue today is: What is the proper type and amount of documentation to justify government reimbursement of legitimate research costs. I hope there is no inference here that we are talking about waste and corruption. We are talking about arguments over procedures.

There have been very, very few documented cases of corruption, and the argument over waste is a highly subjective one in this context. One person's waste is another person's efficiency. It is important to understand that is what we are talking about.

Mr. FOUNTAIN. I intended this question to come later on, but you have hit upon this point, Dr. Bartlett.

The master grant approach discussed in your statement sounds very much like the program-project grants that are now funded in NIH. Do you mean a master grant in that sense where a collection of related projects are reviewed and approved for funding by peer review groups, or do you mean, instead, a situation where individual project grants are combined within an institution purely for the convenience of financial management?

Dr. BARTLETT. I think we are going to have to try a number of approaches.

What is happening in the NSF experiment is that individual projects which principal investigators have won through peer review competition in a chemistry department by the agreement of the principal investigators can be grouped administratively in a common accounting process.

There is another thing that needs to be said in this connection. We underestimate the role of our principal investigators in protecting the integrity of their own grants. The implication is that somehow people can move money around and no one will say anything. That is a world that the university administrator does not recognize.

One of the things I think he is impressed with is that he has to worry about every dollar of the grant that principal investigator has won to make sure it is used in ways that the principal investigator thinks fit his research objectives. It is not a case where you can move it around and the principal investigator will sit silently by. Were that the case, you would not have one Prof. Phin Cohen here; you would have a roomful.

Mr. FOUNTAIN. Dr. Goldberg, do you have a question?

Dr. GOLDBERG. I think the NSF experiment to which you refer would be a very interesting one to observe. My feeling is that if you get a group of principal investigators, each of whom has a grant won in national competition, to agree on how their combined resources are to be allocated, and it is done substantially in terms of the individual grant award statements, then there might be merit to administering programs in that fashion. However, I will tell you frankly that I am very skeptical that individual investigators will allow other investigators to raid their treasuries.

As a matter of fact, the chairman mentioned earlier in the hearing that some 15 or 16 years ago we met with the medical faculty of a leading medical school. I recall very distinctly the chairman's asking the investigators at that meeting whether they would be amenable to a different kind of a Federal award system that would, in a sense, wholesale grants—provide grants directly to institutions or departments. The investigators, in turn, would compete for those grants at the institutional or departmental level.

The response, as I recall it, was unanimous; the investigators strongly opposed the idea of the dean or some other administrator dispensing that money. They preferred obtaining support in national competition.

I think we are looking at a phenomenon that is not strictly fiscal and it is not strictly scientific. These aspects of research performance and support are highly interrelated.

We start with a peer review system—study sections and advisory councils which, in a sense, are a quality control device. I think that is what Dr. Heard was saying.

Once the decision has been made that a particular research project is worthy of support, that it should be supported and other competing projects should not, then it is not simply a fiscal accountability question. The larger concern is whether the decisions made through peer review are being implemented.

While I fully appreciate the difficulties in estimating how much time or effort individuals devote to a project, or of determining precisely what portion of a secretary's time ought to be allocated to the project, frankly I am not personally persuaded that universities cannot cope with these matters.

There is another kind of situation to which you referred, Dr. Bartlett, when you discussed the various types of cost transfers. If I understood you correctly, you regarded all except one of those transfers as improper and unacceptable.

The acceptable type of transfer would be the case where an investigator has four or five very closely related research projects, all performed in a single laboratory, and when the investigator has to make rather arbitrary estimates of the amount of chemical agents, time, and whatever else is allocated among them. I think that poses an interesting question, both on the accountability side and in terms of whether we ought to design better instruments of support for situations of that kind.

I think there is a lot of merit to that. But I would ask you whether the appropriate remedy is not one of legislating or administratively setting up a new instrument of support to deal with that situation, rather than delegating discretion to the institution to make those decisions with respect to the transfer of funds among projects.

Dr. BARTLETT. Indeed, Dr. Goldberg, I think that is what I was pleading for. There should be clear understandings, whether they be in the form of legislation or regulations, which would authorize—indeed, I think I used the word “mandate”—what you are calling new instruments, new forms which would make things that seem to be attractive, but are now improper, possible. My plea is not at all for a blanket discretion to go to the institution but the institution must have some discretion in the administration of closely related projects.

That is where there are two, three, four, or five people in the same department working on a common program of investigation all supported by peer review programs. They overlap in their time. This person starts here. Another person started at another point. A third person started at another point. There should be some way of using those grants in ways that are not compartmentalized.

That is not a plea for violation of the peer review. I do not think that is involved. People need to be able to cooperate.

It seems to me that the NSF experiment invites scientific cooperation. It is not that you turn over to an administrator the right to raid your treasury, to paraphrase your comment. It is that you can cooperate in ways which make sense scientifically.

There are people who are willing to do that. Sixteen years has changed a lot in university and principal investigator experience with Government auditing. They realize we have to find new systems.

Dr. GOLDBERG. If I understand what you are saying, Dr. Bartlett, you are suggesting that the arrangement would be subject to free consent on the part of the investigators concerned. This would not be the situation described in testimony yesterday where a department head arbitrarily decided to use an investigator's money for a completely different purpose.

Dr. BARTLETT. No, if that is in fact what happened, no one I represent would support that kind of process.

There is another kind of process that is quite different from what we have been talking about. It is another way to get at the heart of the problem. That is the funding of the materials research centers at NSF. NSF grants a lump sum of money to each materials research center. The centers in turn grant funds to investigators based on an internal peer review. That process strengthens the institution's capacity to conduct materials research and provides a guarantee of quality.

I am suggesting that there are other models, not only the project grant system, that fit the research as we actually have to conduct it. Those models ought to be added to our present devices. I do not think there is any reason to say that we should do away with all the devices we now have, but they clearly are not adequate for the range of things we are doing if we are going to be efficient.

Dr. GOLDBERG. The main point I intended to make was that there is a very essential distinction between enacting new laws or, if it is within the authority of the executive branch, setting up new support models, and adhering to what universities are obligated to do under the terms of existing instruments.

Dr. BARTLETT. I do not think anybody is making a plea to violate the law.

Mr. FOUNTAIN. For instance, one of the scientists who testified yesterday said he was periodically given a blank sheet to sign—a report of expenditures form. He did it for a while, but it bothered him, and he finally said, "I cannot do that." They fired him because he would not sign those blank sheets as to how they handled his grant funds.

That problem was fund transfers and uses for purposes which the institution probably thought were legitimate but which he, as a researcher, had no way of knowing about. When he found out that some of it was being used for secretaries on other research projects and things of that kind, he became very concerned about it.

Dr. BINKLEY. May I add something at this point? The circumstances we heard described yesterday at the two institutions are very unusual circumstances. These are not what we know at the institutions.

The principal investigator runs a project. He is the one who makes the determinations of what transactions are incurred that generate costs against his project. He is very protective of that project. We would have a rebellion at our institutions if that were not so.

Other than the cases described yesterday, the only circumstance of which I am aware where a department head has interfered is in the rare case where the principal investigator has proven himself fiscally irresponsible. Therefore, the department head realizes he has to ride herd over that PI or he is going to get the institution in trouble.

Mr. FOUNTAIN. I am sure there are some of those situations also.

From the testimony that the subcommittee has received from GAO, in which it took a broad look at HEW, it appears that for the moment

there is an impasse between the Government and the universities on what constitutes adequate documentation of use of Federal funds. Despite the recent revision of OMB Circular A-21, which has not yet gone into effect, it also appears from the testimony that the changes in A-21 are not likely to solve the problem.

Dr. Binkley has stated that, "The systems utilized by the institutions do provide reasonable assurance that a high proportion of the Federal funds have been used as intended."

Dr. Binkley, is assurance that a high proportion of the funds have been used as intended, enough? I do not know what you mean by "high proportion." If you said 98 or 95 percent—

Dr. BINKLEY. I do not have such a percentage.

Mr. FOUNTAIN. I will not hold you to preciseness to the penny.

Dr. BINKLEY. I do not have such a percentage. Of course, neither party is really satisfied with any use that is not in accordance with the intended use. However, it is still our conviction that I could stand behind that statement, although I might not be able to have proof of it.

Mr. FOUNTAIN. What is your opinion as to whether it is necessary, to the greatest extent possible—and I think we ought to say "practicable and reasonable"—to demonstrate that all public funds are used as intended?

Dr. BINKLEY. I feel we have a real obligation to prove that they are used as intended. However, here again it is a matter of the degree of precision. If we can be reasonably satisfied, that may be adequate. A question is raised of how much additional cost should be incurred in order to attain some little bit of additional degree of precision when you still are not going to attain perfection.

Dr. GOLDBERG. Is that really the problem, Dr. Binkley? According to Mr. Stepnick's testimony, the HEW Audit Agency has found in a high proportion of audits that the mandated documentation for salary and wage charges simply does not exist. There are no backup documents, as required by the Federal regulations, with respect to after-the-fact certification, by the investigator himself or somebody who is in a position to know, of the time and effort put into the projects.

I wonder if we really know what we are dealing with. Is it a question of precision in trying to get 1 percent more accountability, or is it something much more basic, such as the fact that some institutions, at least as alleged by the HEW Audit Agency, are simply not meeting their obligations under Federal regulations.

Dr. BINKLEY. I do not want to put words in Ed Stepnick's mouth. However, my interpretation of his statement was this:

They found some deficiencies in the payroll distribution systems of 60 or 70 percent of the institutions. That does not mean that all the payroll documentation at each of those institutions was deficient, but that they found some deficiencies there. There may have been a lack of signatures on some of the documents, but many of them could have had signatures on them. However, a deficiency was cited at such institutions.

Dr. GOLDBERG. We can ask him to clarify that point if there is some lack of understanding. I might say, quite independent of his testimony, that the subcommittee staff has looked at a large number of HEW audit reports. The Audit Agency has found many, many situa-

tions at universities where there simply is no documentation of work effort which the auditors could accept as evidence that the work was performed and was actually related to the project.

This seems to be something more basic than the question of how you attain some small percentage of greater reliability at the expense of a great deal of cost on the part of the university. It is a question of whether the basic documentation exists.

Dr. BINKLEY. A number of the institutions have been under what is called the appointment and workload distribution system as an alternative to the personnel activity reporting system under the existing arrangement.

Circular A-21 does not require documentation of the monthly reviews. The auditors developed the criteria that there must be documentation of the monthly reviews. Circular A-21 does not require that.

They then called the systems deficient that were not documenting their monthly reviews, which is not required by the regulations. They had expanded the requirements and they gave no advance notice to the institutions that they were being expanded. They called the systems deficient when they were the systems that were in accordance with A-21 as stated and had been accepted before. This is the type of problem we have encountered.

It could be that the review should have been documented to begin with, but that was not required in the regulations.

Dr. GOLDBERG. In the interest of time, I would ask whether you would be willing to look closely at Mr. Stepnick's statement and submit for the record any disagreement of fact that you might have.

Dr. BINKLEY. I would be glad to do so.

[The information follows:]



Office of Vice President for Finance

Colorado State University
Fort Collins, Colorado
80523

July 26, 1979

The Honorable L. H. Fountain
House of Representatives
2188 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Fountain:

At the hearing of the House Subcommittee on Intergovernmental Relations and Human Resources on July 18, 1979, you asked that I explain in writing my interpretation of a statement made in the testimony of Edward W. Stepnick, HEW Assistant Inspector General for Auditing. I do so in this letter without having access to a transcript of the hearing.

As I recall the context, you referred to the statement contained in my prepared testimony which said, "The systems utilized by the institutions do provide reasonable assurance that a high proportion of the Federal funds have been used as intended." You asked how I reconciled my statement to the statement of Mr. Stepnick, contained in his prepared testimony at a point referring to salary documentation, which said, "Compliance with the requirements, which have been changed several times since their adoption in 1958, has consistently been found to be nonexistent or inadequate at about 70 percent of the major colleges and universities we audited."

At the hearing I said that Mr. Stepnick's statement should not be inferred to mean that at 70 percent of the institutions all salary charges have been invalid. My interpretation is that, while auditors found some deficiencies at 70 percent of the institutions, much or a substantial portion of the salary charges at many of those institutions were indeed valid. In the examination of an audit sample, auditors at times are dissatisfied with the documentation of a portion of the sample, but they are often reasonably satisfied with the documentation of most of the sample.

From my own background, which includes review of all audit reports of approximately 100 major research universities over a four-year span, I know that the seriousness of deficiencies in salary charges has varied considerably from one institution to another. I believe that the more serious cases were relatively small in number. It is my interpretation that the 70 percent referred to by Mr. Stepnick includes those institutions at which minor deficiencies were noted, as well as those institutions at which major deficiencies were noted.

Since I believe that a substantial portion of the salary charges were valid at most institutions having deficiencies, and since 30 percent of the institutions were without deficiencies, it seems to me reasonable to conclude that a high proportion of the funds were used as intended.

While the emphasis of the statement contained in my testimony differs from the emphasis of Mr. Stepnick's statement, I do not perceive that one statement necessarily invalidates the other. The difference in emphasis of the two statements illustrates the variation in viewpoints, as described in my prepared testimony, of the degree of exactitude necessary for reasonable and cost-effective control.

Sincerely yours,

Max A Binkley

Max A. Binkley
Vice President for Finance

MAB:es

Dr. HEARD. Mr. Chairman, lest there be any question, I am sure in response to this last set of questions that none of us ought to be thought to be arguing that these moneys should be spent for any purpose other than that intended.

Mr. FOUNTAIN. I understand that.

Dr. HEARD. Nobody is suggesting that for a moment. For my part, and I think for my colleagues, we would say that universities that accept research grants must do so, and do do so, agreeing to meet whatever the specifications and restrictions of the grant are, including those for reporting and accounting.

The difficulties that we have encountered are not always knowing precisely what to do and sometimes, when we do know, there is difficulty in actually doing it. That is the point that has just been made by Dr. Binkley. I think there have been genuine cases of ambiguity or confusion.

The message that I would like to emphasize in these discussions is the message that Dr. Bartlett has emphasized. That is the question of whether we can try to find better ways of doing some of these things, not abandoning any standards that we adhere to but trying to find better mechanisms.

Mr. FOUNTAIN. That is the basic problem.

Mr. Stepnick has testified that the longest standing problem revealed by HEW audits has been, as I recall, the lack of reliable documentation to support salaries and wages charged to Federal grants and contracts. He says, "It is virtually impossible to resolve salary and related charges when large universities do not maintain or properly supervise the after-the-fact time and efforts reports required by governmentwide standards."

What I would like to ask each of you is this: If wages and salaries really constitute about 70 percent of grant expenditures, isn't this the crux of the accountability problem? Isn't it essential that universities maintain reliable wage and salary records to support charges to the grants, at least until such time as the Congress authorizes—and maybe that is what it ought to do, I don't know—broader forms of research support which do not require project-by-project accountability?

Dr. BARTLETT. Mr. Chairman, I keep having the sense that we need to make a distinction here between the question of accountability and the problem of documentation. To my mind they are not the same thing.

I do not think there is any question that universities must and do accept the requirement that they must be accountable for funds that go for salaries and wages. I am not clear that there is significant evidence being submitted that we are not doing that.

There is clear disagreement over what is proper documentation. That is a highly technical, mechanical, and, on occasion, arbitrary kind of issue.

For example, if we really were going to document effort accurately, a principal investigator would have to carry around on his person a way of recording, or have a person follow him around recording, the following: When he goes to the library, what is he reading? When did he stop reading that and start reading something else? When he is working with a student correcting something he has written which is

part of the research program, what is he doing? To document effort accurately would require that kind of precision.

I do not think anybody really proposes that we get to that level of detail. Then the question arises, what is enough documentation to prove that we really are using the funds for the purposes intended.

Every university and college is audited by external auditors. Each has its internal audit processes. We are not unaudited institutions whirling in some kind of accounting vacuum. We make public to those who wish to see it in one form or another the audits of our programs. In that process we confirm that our obligations are carried through.

However, there is a different kind of documentation that is required under the grant processes we are describing. What we are arguing about, I would repeat, is not whether or not Dr. X did one, two, and three. What we are arguing about is can we prove Dr. X did one, two, and three.

It is important to separate the substance of the problem, which is what are people actually doing, from the form of the problem, which is how do we write it down in ways which are adequate.

Mr. BROWN. Would you yield for a question on that point?

Mr. FOUNTAIN. Yes.

Mr. BROWN. As the father of one now in an institution of higher learning, the moral problem that goes deeper than that is whether or not you are advertising Dr. X as a research person who is doing the work on a Federal Government project and also advertising him to those of us who are paying tuition for the education of our children as the one who will head the department and administer his or her education in a certain sphere or perhaps, wonder of wonders, even teach the youngster in class.

What occurs to me is that the colleges may be getting the best of both worlds. I never knew until you just mentioned it that I could call up the two universities from which I graduated and ask for an audit of their accounting procedures for the money that is sent to them from alumnus or that the Federal Government and my parents paid to educate me. My guess is I would have a difficult time doing that but maybe I could. I certainly could not at the one where my son is at college now.

The question is what kind of usage of these Federal funds that go to the university is really being made. My guess is that the university is saying, "Here is the professor who will do this research," and then they do one of two things. They either hire a bunch of research assistants to do the work on the Federal grant and he goes on with his consulting fee work outside the university or perhaps even teaches a class or two, or they wind up with his doing some of the work on that project and the TA teaches the class or gives the lecture for the freshman, sophomore, junior, or senior year.

I think it does put you in the position of having the best of both worlds. The problem from the standpoint of the Federal Government is that we do not demand any results for the most part out of these studies that are done by the distinguished professors on the faculty that most universities have in certain fields. We may get the wheel re-invented for the money that the Federal Government spends.

As the ranking Republican on the Joint Economic Committee, I sign a lot of contracts where professors and others, for not insignifi-

cant fees, give us the results of their studies. My guess is the basic work has already been paid for by somebody else, perhaps even another branch of the Federal Government. We are buying the results of those studies in some slightly modified form.

It is a great game. I think it is probably needed by the universities or our tuition fees would be much higher. However, where is the line properly drawn on some of these things?

Dr. BARTLETT. Congressman, you raise so many issues that it is difficult for me to respond to all of them. However, let me respond to the one—

Mr. BROWN. I raise this as an accounting problem. Maybe what we need is the American Society of Public Accountants or somebody to come in and give us standard accounting procedures and all that for universities. I think that treads close to the line of interfering with the traditional academic freedom of universities. God knows this committee has done too much in that area already with the Department of Education. [Laughter.]

Dr. BARTLETT. Personally I agree with your latter statement very much, but that is another matter.

Mr. BROWN. I did not mean this subcommittee but the full committee.

Mr. FOUNTAIN. He meant the Committee on Government Operations, not this subcommittee.

Dr. BARTLETT. Let me comment on the research aspect of that which, I take it, is the thing that is before us.

It is very difficult, particularly in the physical and biological sciences, for the principal investigator to deputize somebody else to do that work. It is not difficult; it is virtually impossible.

Usually there is a portion of the grant he receives for staff assistance. The people he hires are usually graduate students. There is no way at the level at which he is going to have to perform under peer review systems and get renewed under peer review systems that he can deputize someone else to do his work. I think there is very little problem of principal investigators in the natural sciences not doing what they said they were going to do. I think that is rarely, if ever alleged.

The other side of it, the issue of the educational process, is another whole subject. However, it seems to me in the research part, in the natural sciences where most Federal money is, we can be very confident that the people are doing the work they said they were going to do. Nobody else can.

Mr. FOUNTAIN. I have another question. However, in order to keep things coherent there are some questions I should ask right at this point in order to develop this chronologically.

I think Dr. Heard spoke to the difficulty of deciding how much of a professor's salary is allocated to a federally sponsored project when that faculty member is engaged simultaneously in teaching and other functions. While I would readily agree that cost allocation is difficult, it is certainly not impossible because it is done all the time in a variety of other institutional settings.

Doesn't the problem really come down to the particular method used to document the proportion of total worktime or the effort each faculty member devotes to federally sponsored research? Do you all agree on that?

Dr. HEARD. Yes.

Mr. FOUNTAIN. In the event a particular professor carries a specific teaching load, such as halftime, isn't it easier to estimate how the remainder of his work activity is divided between federally sponsored research and his other institutional duties?

Dr. BINKLEY. To the extent that his teaching load can be clearly defined, that is an assist in determining what his other activities may be. He may also have part-time administrative responsibilities. He may also be involved in patient care. He may have several research projects and you still have the problem of allocation there.

Dr. GOLDBERG. Dr. Binkley, don't institutions normally make appointments in a fairly clear-cut way where a person is paid for full-time teaching or halftime teaching or some other proportion? Isn't this the normal way in which institutions compensate individuals—

Dr. HEARD. Let me make one comment on that. Then Dr. Binkley can follow up.

There is considerable variety, at least at my university, and I think at others too, in what is defined as the full-time teaching load of a faculty member. This will vary from one department to another. Certain departments will have 9 class hours per week as the normal full-time teaching load. In a different department in a different discipline those hours may be 6 or higher than 9. There are differences between individual faculty members as to the number of class hours required for a full-time teaching load.

When the institution makes those distinctions, it is usually saying, "We think this faculty member can best use his time in certain ways"—6 hours teaching and, if the normal load is deemed to be 12 hours, the other half of his time on something else. Those are proportions and we don't mean 12 60-minute periods doing something but we are talking about half of his workload. In one case, the best interests of the institution are served if the faculty member devotes half of his time to other than teaching, or in another case a third of his time or a fourth of his time to other than teaching. That will vary greatly.

What he does in that nonteaching time also can differ. Some have extensive extra-academic assignments, special counseling assignments, working with students outside the classroom in certain ways. Some may have administrative responsibilities. Some may have clearly defined explicit research responsibilities. Some may have the general assumption that what is left over is to be devoted to research.

The variety of circumstances is very great among individuals and among disciplines.

Dr. GOLDBERG. I appreciate that kind of situation does exist in institutions. However, relating your response to the chairman's question, despite the variation in the number of hours that constitutes a full-time load, as long as there is a policy and an understanding between the institution and a certain professor that his teaching will constitute 50 percent of his workload, doesn't the accounting problem under those circumstances become easier in looking at the other 50 percent and deciding at the time of documentation and at the time of audit how that other 50 percent is allocated between Government-sponsored research and other activities?

Dr. HEARD. Yes.

Mr. BROWN. Would you yield at that point?

Mr. FOUNTAIN. Yes.

Mr. BROWN. I am not sure I agree with you. One of the things you are hiring—and we do this in Joint Economic Committee and certainly have done it in the energy field—is use of the guy's econometric model, which may be a matter of input over a couple of weeks but it is something to which he has devoted a good deal of his time in preparation of it. Then the figures are cranked in at one end and you come out at the other end with something for which you are paying and for which, it seems to me, it is very difficult to quantify in terms of how long it took to run the computer.

I have a lot of Federal Government research in my district at Wright Patterson Air Force Base. I think from time to time some of that is referred to some academics for consideration of whether the path they have chosen to pursue is likely to be a promising path. You buy some academic judgment from, for instance, somebody who is noted in the field of ceramics where you might find he could head them off or say, "You have two choices here and the most promising one is choice A." With that academic judgment, the Government either saves or wastes a whale of a lot of money, it seems to me. That might be somewhat difficult to quantify by the hour.

Dr. BINKLEY. We do not quantify it by hour. We quantify it by percent of total effort.

Mr. BROWN. How much is a Nobel laureate worth in economics as opposed to somebody who is not quite there yet in terms of his recognition?

Dr. BINKLEY. Presumably that is a factor in his aggregate salary.

Mr. BROWN. You quantify it on the basis of what the institution pays him or the fact the institution pays him a modest amount and says, "Go out and make as much as you can consulting and stick with us because we helped make your reputation?"

Dr. BINKLEY. The percent of effort is applicable to his total aggregate salary. His total salary rate is set.

Mr. BROWN. I tried to get one of the accountants at a distinguished university as a staff member of the Joint Economic Committee, and the guy laughed at me because I could not offer him the money to work here on Capitol Hill that he was making not from his salary as a professor but from his salary, his consulting fees, and his writing.

He said:

If I could work on your staff, Congressman, nobody is going to pay me to write because it is corrupted by the fact that I am working on a partisan side of a Government committee. I am not going to get very many consulting fees because nobody will pay me. Legally they cannot pay me for that kind of work.

When that kind of a person is hired, what is his time worth? Is it the university salary? Is it the amount he is paid by Procter & Gamble to do consulting? Is it what he got for his last book that the university requires him to print?

Dr. BARTLETT. If I understand that question correctly, Congressman, that person would devote a percentage of his time to a particular Federal grant program. How much he was paid for that would be a percentage of his university salary, not of his total income.

Mr. BROWN. Aren't you fellows in a position as administrators of universities to say to this professor:

We will require only two-thirds of your active time. What you make on consulting and what you make in separate writing and what you make in fees for

whatever you might be doing is your business. Just don't get the AAUP in here pushing for higher salaries all the time.

Dr. BARTLETT. What I am going to say is not invariable because institutions do not all do it exactly the same, but most universities have a conception in each department of a full load. A full load, incidentally, almost always involves at least 1 full day off. What a person does with that time is his own affair.

Universities do not forbid faculty from capitalizing on professional writing and scholarship work on their free time. Most departments in most good universities simply monitor it.

As long as that person meets the department's definition of a full load, what he does with the balance of his time is his own affair.

Mr. BROWN. I am reluctant to mention names specifically and will not do it, but I will mention them to you privately. I have known professors who have served on corporate boards and who do separate consulting work because of these econometric models and other things they have put together who are making far more on the outside than they are making with their full load of academic work.

Dr. BARTLETT. Oh, yes.

Mr. BROWN. It seems to me the question is not what Vanderbilt will pay him or MIT will pay him—and I hope you are not offended by the connection—but what United States Steel, Procter & Gamble, or Mobil Oil might pay him.

Dr. BARTLETT. There is another thing that needs to be said. There are some people—not many—who make more outside their salary than they make inside the universities. That is true.

However, we are talking about the problems of administering Federal research grants. The faculty member who sets out to be a principal investigator, goes through the peer review system and wins a grant, does so knowing that the rate at which he is going to be paid for his time is going to be on the basis of his academic salary, not his total compensation. He has to make a judgment. Maybe he cannot afford to be a principal investigator because he has to spend his time with his econometric model. However, that is his judgment. But that does not affect how much he gets paid under the grant.

Mr. BROWN. Mr. Chairman, I appreciate your courtesy. I have a time constraint and I have two other questions I would like to ask. One is a factual question.

I would like you to give me the answer, Dr. Bartlett. If you cannot, I will try to get the GAO to find out for me. I think maybe they have already done this work.

What percentage of the income of universities is supplied by Federal funds broken down in the categories that the Federal Government puts money into higher education—research grants, student aid, and so forth? I have heard the figure, but I do not know where it might come from. Perhaps staff could help me with this. I have heard that in certain institutions noted for their scientific studies it is much higher than either their endowment or tuition fees. Therefore, they are really extensions of the Federal Government if you consider where their funds are coming from. Is that a fair statement?

Dr. BARTLETT. Since the Second World War it has been the policy of the Federal Government, as I understand it, to do most of the basic research of the United States in universities. Of the universities that

do the greatest part of the research, most of that research is funded from Federal sources.

Mr. BROWN. Do you have figures on that either in the aggregate or specifics for a number of universities?

Mr. FOUNTAIN. It depends upon the area.

Dr. BARTLETT. I have the specifics for a number of individual universities but not for the whole higher education.

Mr. BROWN. Please provide that for me personally or for the record. Dr. Goldberg tells me it varies with certain different kinds of schools. I would like to see that in general. I would like to see it across the spectrum of the university community, if you could do that.

Dr. HEARD. In his speech of April 10, Mr. Staats gave these figures. These are 1978 figures, as I understand them:

The universities do 52 percent of all basic research in the United States. Fifty-four percent of all Federal funds spent for basic research is spent in the universities. In other words, over half of the basic research in the United States is done at universities and over half of the basic research that is funded by the Federal Government is done in universities. Also, 72 percent of the basic research support in universities is funded by the Federal Government.

Mr. BROWN. That still does not quite address the point I am after. When you, as the president of a university, prepare your budget, how much Federal funding for research and how much of the Federal programs that assist universities—and I think this is the thrust of the interest of this committee—comes from Uncle Sam?

I go back to the point that you mentioned in trying to bring these two things together. Does the professor in making his contract with the Federal Government operate on his own and then come back to the university and say, "This is what we are getting from the Federal Government"? Does the university negotiate it and consider it as part of the budget of the university? How is it handled by the average university? Is there any average procedure?

Dr. BARTLETT. I think we can answer the procedural question with some confidence. It is closer to your first model than your second one. It is much more the individual professor going to a Federal agency and competing. If he wins a grant under a Federal program, then the university acts as the administering agency. It is not the university that goes to the agency and says, "We would like to do the following research."

Mr. BROWN. However, I have the feeling that somewhere in the planning of the university—and I plead for candor in this because that is the only way we are going to get some guidance about what ought and what ought not be done—I have a feeling that once that link-up has occurred, then the university says, "We are getting so much for selling ads on television shows of our basketball team. We are also getting so much for Professor Smith and his study project for HEW."

All of this relates to how you run the university. You do that as an income side of the ledger. Then on the other side of the ledger you put down how much you paid Professor Smith and also how much you paid his teaching assistant who is doing freshman economics or biological sciences or whatever it is because Professor Smith now gets 2 days off rather than one.

Is that too unfair?

DR. BARTLETT. No. A major university that is conducting a large research program—and that is one category because it is not all institutions—will have a record of a level of research. One of the things it will build into its budget is an expectation of indirect cost reimbursement for that level of research, simply based on what happened last year and the year before and what it assumes will be happening next year.

On the basis of level of activity, that decision is translated at some point in the institutional process to the number of faculty in a given department. The size of that department will depend in part on past experience with sponsored research. You would not hire that many people if you did not know from past experience that you are likely to have x numbers of your people doing some sponsored research work. Therefore, it is built into the system.

That, incidentally, is the direct result of the decision which the Federal Government took soon after the Second World War. Most of the U.S. basic research will be done in universities. Universities have developed the capacity to carry on that function and they have built it into their systems.

One of the problems with the project grant system is that universities, like other major economic entities, have to anticipate income in order to plan for the future. In the 1950's and 1960's they built expensive laboratories partially on the assumption that the Federal Government would continue to fund basic research projects.

To illustrate one aspect of the problem you are raising, one of the things that happened at the beginning of this decade was a sudden and precipitant cut in research funds. That did not just affect one little piece of the great graduate and research universities in the United States. It shook them all up and down the line. Under Federal inducement of the strongest sort—

MR. BROWN. Production would be a good term.

DR. BARTLETT. No, I think it is partnership. I think this really was a national policy which was very clearly enunciated after the Second World War. We all assumed we were doing the patriotic and right thing to do.

When those sorts of policy decisions are suddenly turned around, the whole fabric of the university is affected because in good faith the universities have done what we understand they are supposed to do.

Out of that then came almost a slogan from the universities: "We can cope with high levels of research funds. We can cope with low levels of research funds. What we cannot cope with, is rapidly undulating levels of research funds." That slogan is built into the system.

[The information requested by Congressman Brown is contained in the following letter obtained by the subcommittee:]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
November 2, 1978.

MR. CHARLES B. SAUNDERS, JR.
Vice President for Governmental Relations,
American Council on Education,
Washington, D.C.

DEAR MR. SAUNDERS: Thank you for your letter asking that I clarify the figures I used in my August 21 address to the American Federation of Teachers

regarding the magnitude of Federal support in post-secondary education (copy enclosed).

I would like to point out that the figure I used was intended to represent direct and indirect Federal support of the entire post-secondary sector, including assistance to students and families as well as institutions. The National Center for Education Statistics (NCES) however, in the table you cited, includes under Federal funds only those funds that institutions of higher education receive directly from the Federal Government. The following are examples of indirect benefits that institutions of higher education receive:

Direct Federal payments to students (especially under Veterans Assistance and Social Security benefits programs);

Tax expenditure resulting from:

the exclusion of taxable income of veterans readjustments benefits and other scholarships and fellowships;

parents claim for personal exemption for full time students over 18 years of age, if the students have income of their own;

the deductibility of contributions by both individuals and corporations to educational institutions;

Other Federal assistance such as amounts for loan forgiveness, Federal losses through guaranteed loans, and amounts for new higher education loans.

For these reasons, NCES's 15 percent figure does not fully represent Federal support of post-secondary education. An alternative approach in estimating the total Federal impact is to calculate the ratio of Federal outlays for post-secondary education (including research funds, student aid and tax expenditures) to total sector revenues (including proprietary revenues and commuter student room and board expenses). The result of such a calculation is that the Federal Government in fiscal year 1977 provided about 30 percent of the income in the post-secondary sector.

Sincerely,

JOSEPH A. CALIFANO, Jr.

MR. BROWN. As a matter of conclusion, I think Dr. Bartlett has made a very good point.

I heard a verbal presentation the other day by the vice president of Exxon at a seminar I attended at the Aspen Institute in which we were discussing research and development and administration projects. He verbalized a plan or an idea that would call for partnership between government, private and public universities, and corporate institutions that would tend to try to stabilize the research effort and then do something with it afterward. It would tend to break this link, to some extent, between the government going directly to universities and would bring about a three-way partnership that might be somewhat more stabilized than we currently have. He told me he would send me that idea crystallized into a letter.

DR. BARTLETT. In principle it is an issue in which we are very interested and to which we are very sympathetic. One does not know the nature of the precise proposal, but in general the idea of increasing that triangular interaction is one in which the research universities by and large are very much interested.

MR. BROWN. Mr. Chairman, thank you very much for your courtesy.

When we get rid of this responsibility, if they would offer us a college presidency, it might be a very appealing job but I do not want it to corrupt us. I think the nature of this hearing is to avoid the corruption of otherwise very fine people.

DR. HEARD. Mr. Chairman, let me be explicit on one point in response to Congressman Brown's question. In my university—and I feel sure in others—when budgetary plans are laid they seek to anticipate income from all sources, including the U.S. Government, includ-

ing Government research moneys and other Government moneys. And they try to anticipate expenditures for all purposes.

Congressman Brown's original question was: Do you take into account Federal moneys that you are going to receive? The answer is yes. It is fundamental.

Mr. BROWN. I just do not want you to be tempted to do the wrong things with that money.

Dr. HEARD. No, sir. You don't let us, and we wouldn't if you did.

Mr. FOUNTAIN. Hearings of this kind prompt us to want to ask a lot of questions but, as was the case with Mr. Brown, we all have constraints on our time. However, before concluding with two or three questions, I cannot resist the temptation of asking one question that has an indirect relation. These are only a few of the questions we have which we may send to you.

Are we spending too much money in low priority research and too little money in high priority research?

Dr. HEARD. I would find that extremely difficult to answer.

Mr. FOUNTAIN. I know it is a \$64,000 question.

Dr. HEARD. The question is what is the standard of priority. I guess those who fund and those who do research, basic and otherwise, would like to think that they are spending their time in the ways they best can. New problems can arise, new issues to be studied, for which skills, equipment, and training have not been developed yet. Therefore, there may be a time lag in attacking the most important problems. You may not be working on them. You just may be doing what you know how to do.

It is very difficult, especially if one considers that the results of basic research are very difficult to anticipate and often delayed in coming. This does not mean automatically all basic research is therefore good or effective or productive in the long run. It just means it is difficult to assess promptly.

What we depend on ultimately, I guess, is the instinct, judgment, and demonstrated competence of people doing research, melded with a definition, from a national perspective, your national perspective, of what needs to be done. It is a very hard question for me to answer.

Mr. FOUNTAIN. A number of reasons come to mind. One is that when I pick up this big book and see the list of grants made by NIH, as H. R. Gross used to do when he was in the House, examining them just on the basis of their titles, you wonder if a lot of money has been wasted. I remember one on the alcoholic habits of the American people.

Somehow the American people are constantly picking up these things. It is hard to answer their questions when they write and ask why in the world we are spending money on this or that. Of course, after you thoroughly go into the background of the project, some of the most ridiculous-sounding titles turn out to be extremely important work.

Dr. Goldberg can probably remember this better than I can—as I recall, we found an excessive amount of money being spent by NIH on what they themselves considered low priority projects. They were spending some percentage of their funds on low priority research.

Dr. GOLDBERG. Mr. Chairman, that was largely in the context of support for a portion of the so-called approved applications which NIH

and others thought ought to be supported during the financially plush days of the early 1960's. At that time NIH was paying perhaps twice the percentage level of approved applications that it does today. The priority score for funded projects was roughly 450 in comparison with the worst possible score of 500. The average approved grant supported today has a priority score of perhaps 300. Therefore, the quality level of health research projects being supported today apparently is considerably higher than it was during that period.

A portion of the money appropriated for health research in the 1960's was spent to support projects which NIH's peer reviewers thought were acceptable but relatively poor quality. The Congress, aided and abetted by academicians who were beneficiaries of those funds, was forcing money on NIH each year considerably beyond the amounts spent in the previous year.

Mr. FOUNTAIN. NIH tells us it is awfully hard when the chairman of a committee asks, "Can't you use more money?" They hate to admit they are not prepared to spend the money effectively, so they say, "We'll do the best we can." As a result, NIH actually had more funds appropriated than they could wisely and judiciously spend. That was during the early years.

Let me ask you this question, Dr. Heard. If at the time a professor applies for a grant he is able to estimate the percentage of work activity that he expects to devote to a research project, should it or should it not be easier—and more accurate—to estimate the time actually spent on that project, after the fact, on a weekly or a monthly basis? I appreciate we are dealing with estimates and not precise numbers. However, I find it hard to understand why this process is so difficult.

Before you answer that question, I will ask you this one: If it is difficult, is it because universities fear the possible loss of research funds they have already budgeted for faculty salaries? If so, I can understand that would pose a big problem. I would appreciate your candid discussion of these questions.

Dr. HEARD. I think the answer to the second question is no, at least in my experience. I am told, and I confirmed this this morning with my colleagues, that Vanderbilt has been in an unusual situation, a unique situation. We have been the only institution, as I understand it, working with what is called stipulated salaries. It will not be possible to do that after A-21 goes into effect this coming fall.

We have been required, and we have taken advantage of this opportunity, to stipulate in advance the proportion of time and therefore salary that would be assigned for the particular individual to the project in question. My colleagues tell me they feel that has worked well. Whoever has looked over their shoulder and scrutinized it and audited it apparently has agreed. At least we have had no complaints about it.

I think your question is a fair one. I think the only objections that one can offer are the two that have been implicit and explicit in what has been said already.

One is the fact that documentation may be difficult. It is an estimate to start with. It can be an estimate at the end. It may be hard to document. It may be difficult, not necessarily time consuming, to document.

Second is the question: Is that the best use of the individual's time, making the kinds of reports that may be required?

I do not have much sympathy for persons who say, "I cannot be bothered with that. I am accustomed to being a free agent. I do not want to engage in these tedious reporting requirements." I do not have much sympathy for that. I do not think very many people really take that attitude.

However, you can envision—and there has been discussion of this—that much labor may be involved in documentation. That does make some people question its desirability. The other part of it is the accuracy of the documentation.

Dr. BINKLEY. I believe you have covered the answer.

Dr. GOLDBERG. Just as a matter of practicality, isn't it easier, for an investigator, or for you and me, to record how we spent our time yesterday and today at the end of each of those days, and to record what we did during the course of a week immediately at the close of that week, than to wait until the end of a fiscal or calendar year and then try to go back and reconstruct what we did during that period?

Dr. HEARD. It is certainly going to be gross and impressionistic if you do it at the end of the calendar year.

There is at least one attorney sitting up there. As I understand it, lawyers certainly keep a record of how they spend their time because this is how they bill their clients, based on the amount of time they spend. We know that can be done and is done.

I guess it is partly because of the several purposes that the faculty member may be pursuing at the same time. When you read that book to which Dr. Bartlett referred—are you reading it for your research, are you reading it for the class you are going to teach the next day, or which research project are you reading it for? You can make the arbitrary assignment of time; there is no question about it. You can do it every hour if you take the time to do it. It may not be precise but you will have it down. You will make a judgment. It will rest on the judgment.

Mr. FOUNTAIN. That is documentation if he puts down 3 days a week, 4 days a week, or whatever it is.

Dr. BARTLETT. The real professional success of a faculty member is finally going to be determined by his productivity. He is driven by factors, strong ones in strong institutions, the ones that are getting most of the grants, that are much more compelling than whether he can in fact justify that he is spending that amount of time. At the end of that time he has put in he has to have a result that his peers will honor or he is not going to get the brass ring the next time around. He has to do this over and over again. He has to be successful.

That is the real pressure on that person—to make sure that he is using that time. To control the time and document it is really a kind of exercise in an arbitrary judgment.

Dr. HEARD. I do not think we should give the impression that we feel there is not a problem here. I expect that you could find cases in which the teaching function has been supported in fact by research moneys.

Mr. FOUNTAIN. That is what brought on this problem.

Dr. HEARD. There is no use to try to pretend that is not a problem or that it has not been a problem.

The question is how best to solve the problem. One way to attack it, if you can get any kind of responsible adherence to the system, is this

hourly, daily, or weekly reporting. We currently function under a monthly estimate of time spent.

If there has been an abuse of that, nobody can fault you for trying to correct that abuse or requiring those who have abused it to conform to what the policy and the principle are.

My only plea is that we try to solve those problems in the ways that give you the best substantive results and do not impede the main purposes of the grants in the first place, which is research.

Dr. BINKLEY. It ought to be added that the reverse of this situation is true also. Frequently instructional funds are used for research purposes as cost-sharing against a project.

Mr. FOUNTAIN. I think we all understand the problems; the question is how to solve them.

If I were a university, I would rather be able to spend all my money as I saw fit without having to give any accounting. Maybe I might do a more efficient job if I realized those funds come from the taxpayers and have to be justified, and that those in the Congress who appropriate them are responsible to their constituencies.

We have this problem now because a number of years ago basic research money was being improperly spent to pay professors' salaries. It was the feeling in Congress that if the Federal Government wanted to spend money for that purpose, we should enact specific legislation to provide aid for higher education, for teachers, and so forth.

I will ask you just one more question. Does the resistance to providing a monthly after-the-fact record of proportionate time or effort an investigator has spent on Government-sponsored research originate with the faculty members involved, or is there resistance also from university administrators?

Dr. BINKLEY. It is principally the faculty members. Although the administrators have to handle the papers, resistance principally comes from the faculty members because they have to measure each individual on the project each and every month. If the individual is on more than one project, another PI may have to look at the time and the department head has to look at it with regard to instruction. It is a lot of paper shuffling.

Mr. FOUNTAIN. Are we faced here with an issue that is largely an emotional one, is it more a matter of objecting to required reports on how a professor spends his time rather than the ability to make those reports?

Dr. BARTLETT. Mr. Chairman, I would like to comment. Of course, it is a blend. It is a wide continuum of concerns.

However, there is one that I would like to mention that has not been emphasized very much but is very germane to the topic. One of the things that has been very effective about American science has been the linking of graduate education and research into one process. It means that the men and women coming through the system get into the actual conduct of science early and as part of their graduate work. They do real research while they are still students.

We have put a great deal of emphasis on our science tradition—and from all we can tell from comparisons with other countries it has been done very successfully to bring the graduate student into research, and we bring research into the educational program of the university. The faculty member who is the investigator is also the teacher who is

stimulated by his student. The student is stimulated by the close proximity to an investigator at the frontiers of knowledge, and so on. It is a whole process.

What some of us fear is that into that process will come a set of constraints which force us to pull it apart in order to document what each part is. The logical and simple way to deal with all of the problems we are talking about has always seemed to me to be simply to take research out of the universities. Separate education and research. Both would be neat and clean, and most of our problems would evaporate. The only casualty would be good science.

I think that is one of the things that concerns us most—to protect that fusion of graduate education, of apprenticeship, of stimulation for the principal investigator, of research, all into one dynamic process. That arouses emotions. It arouses emotions on everybody's side—on the part of the person who cannot understand why we are so concerned about it because it does not seem to be a very necessary problem and on our parts because we see inroads coming into that process that may break it up.

What we will do in universities is gradually separate, under the pressure of fiscal processes, the parts of the process and thereby lose something very important. That element is a little piece of the answer to your question, but it is an element that I do not think has been sufficiently emphasized.

Mr. FOUNTAIN. I have a number of questions I have not been able to ask. I will have Dr. Goldberg go through them and see if he wants to send any out to you, Dr. Binkley, for written response. I think most of the subject matter we had in mind has been basically covered. I hope when we have completed the hearings, they will lay the groundwork for helping the Government agencies, universities, and the Congress to better understand and deal with these problems.

All of you have been extremely thought provoking in your statements and in your responses to our questions. We appreciate your presence here.

You, Dr. Bartlett, as head of the Association of American Universities, are speaking for a very large group. All of you are understandably concerned.

I think the key thing about which we are concerned is that some universities have been repeatedly advised by the audit agencies, over many years, that their accounting systems are inadequate for the accountability of Federal funds, for documenting charges to Federal grants, and therefore unacceptable, particularly under Circular A-21, which has now been amended.

In some instances, perhaps there has been too much bureaucratic redtape. We have been fighting that also. We will continue to fight it.

I think we all see what the problems are. I hope these hearings will stimulate some improvements. We have taken testimony, but we cannot force anybody to do anything that is not required by law.

However, I think appropriate administrative action is the important thing at this time. A good administrator can take even a bad law and do a good job. A bad administrator can take the best law in the world and slaughter its intent.

Again, thank you for being here.

The subcommittee stands in recess until 9:30 tomorrow when the hearings will resume with testimony from the Office of Management and Budget, which some consider the fifth branch of Government, and the National Commission on Research.

[Whereupon, at 1:37 p.m., the subcommittee adjourned, to reconvene at 9:30 a.m., Thursday, July 19, 1979.]

**ACCOUNTABILITY OF EDUCATIONAL INSTITUTIONS
FOR FEDERAL FUNDS AND THE EFFECTIVENESS OF
FEDERAL AUDITS**

THURSDAY, JULY 19, 1979

**HOUSE OF REPRESENTATIVES,
INTERGOVERNMENTAL RELATIONS
AND HUMAN RESOURCES SUBCOMMITTEE
OF THE COMMITTEE ON GOVERNMENT OPERATIONS,
Washington, D.C.**

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2203, Rayburn House Office Building, Hon. L. H. Fountain (chairman of the subcommittee) presiding.

Present: Representatives L. H. Fountain, John W. Wydler, and Olympia J. Snowe.

Also present: Dr. Delphis C. Goldberg, professional staff member, Gilbert S. Goldhammer, consultant; and Thomas Houston, minority professional staff, Committee on Government Operations.

Mr. FOUNTAIN. The subcommittee will come to order. Let the record show that quorum is present.

The subcommittee will complete its series of hearings this morning on institutional accountability and auditing with testimony from the Office of Management and Budget and the National Commission on Research.

We are delighted to have with us this morning, as our first witness, Mr. Bowman Cutter, Executive Associate Director of the OMB.

Mr. Cutter, we would be delighted to hear from you.

Mr. WYDLER. I just want to welcome you, too, Mr. Cutter.

I have had some dealings with you in the past, and I am delighted that you are a witness here today. You are a credit to the OMB.

STATEMENT OF W. BOWMAN CUTTER, EXECUTIVE ASSOCIATE DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET; ACCOMPANIED BY JOHN LORDAN, CHIEF, FINANCIAL MANAGEMENT BRANCH

Mr. CUTTER. Thank you very much, Mr. Chairman and Mr. Wydler. It is delightful to be here.

Mr. WYDLER. You have not been asked to resign today, have you?

Mr. CUTTER. Not so far, no. [Laughter.]

It is a pleasure to be here.

I would like to introduce Mr. John Lordan who is the Chief of the Financial Management Branch of OMB, who will assist if there are questions.

(221)

MR. FOUNTAIN. It is nice to have both of you.

MR. CUTTER. Thank you, sir.

As my statement is brief, I will go ahead and read it. And then I am free to stay here as long as you have questions.

We welcome the opportunity to discuss with you the question of university accountability for Federal research funds.

As you know, Federal funds are the largest sources of support for research activities undertaken in colleges and universities. Nearly \$4 billion will be obligated in fiscal year 1980 by the Federal agencies to support research and development in colleges and universities, including medical schools. This is an increase of 9 percent over the 1979 fiscal year dollar level and represents approximately two-thirds of the research and development financed in these institutions from all sources.

Scientists at colleges and universities continue to be the primary performers of basic research, not only for the Federal Government, but for the Nation as a whole. Academic researchers will benefit significantly from the continued growth in basic research provided in the 1980 budget. This growth is intended not only to encourage scientists to undertake innovative research, but also to assist in ameliorating some of the problems currently associated with the performance of research in colleges and universities, including the growing obsolescence of equipment and the lack of opportunities for young investigators.

Approximately half of the Federal research and development funds that universities and colleges receive goes to conduct basic research; approximately 40 percent to conduct applied research—primarily medical—and the remainder to undertake development activities. The Department of Health, Education, and Welfare and the National Science Foundation are the major sponsors of research and development at colleges and universities with estimated respective levels of \$1.9 billion and \$631 million, respectively, in 1980. The Departments of Defense, Agriculture, Energy, and the National Aeronautics and Space Administration will each provide more than \$100 million in 1980.

Obviously, then, the administration is deeply committed to maintaining a vigorous academic research base for the Nation. But, like the members of this committee and Members of the Congress, we are also concerned about the cost of research and about assuring that the taxpayer gets the greatest possible benefit from every dollar spent on it.

Director McIntyre has recently announced a program that bears directly on the subject of these hearings. Called the financial priorities program, its purpose is to resolve the major financial issues facing government today. Two of these priority issues are grant accountability and audit followup. In announcing the program, Director McIntyre pointed out that the priority issues had been selected in consultation with the Comptroller General, and that the program will be fully integrated with our regular budget review process. In testimony before another subcommittee of this committee, we pledged to "put the entire resources of OMB behind this effort." Let me summarize what we have done so far.

First, with respect to cost principles, we have completely revised Circular A-21, "Cost Principles for Educational Institutions." The

revision was based on recommendations made by the Department of HEW after urging by the House and Senate Appropriations Committees. The committees expressed concern that the existing principles were not sufficiently clear to "bring spiraling indirect cost rates under control."

Development of the circular was an open process involving all affected parties. We published our initial proposal in the Federal Register over 1 year ago, on March 10, 1978. In response, we received about 300 letters from Federal agencies, university administrators, faculty members, professional associations, and members of the public. In addition, we received more than 60 inquiries from Members of Congress. We held numerous public meetings with interested individuals and groups, and in the final stages briefed congressional staff, Federal agencies, and universities on changes that resulted from the process of consultation.

In issuing the final cost principles, Director McIntyre referred to them as "tight new rules," and said "they will bring more uniformity to university accounting, and will narrow the range of accounting alternatives available to universities." He said:

This will be accomplished without placing unnecessary administrative burdens on the universities. In fact, it will reduce those burdens.

He cited the following examples of reduced paperwork: a simplified method that small universities may use to compute overhead; a "monitored workload" method of keeping track of personnel costs that requires far less reporting while retaining strict control; a coordinated action with the Congress' Cost Accounting Standards Board that will exempt almost all universities from the Board's regulations; and a reduction in the frequency of faculty "time and effort" reports.

Mr. McIntyre particularly thanked the General Accounting Office for its assistance, which included a formal audit report on the proposed revision, entitled: "Federally Sponsored Research at Educational Institutions * * * A Need for Improved Accountability." The report said that the new rules, A-21, would improve university accountability "by providing more definitive guidance."

The revision of Circular A-21 parallels earlier efforts to standardize and simplify Federal grant requirements. Our Circular A-110, "Uniform Requirements for Grants to Universities, Hospitals, and Non-profit Organizations," established requirements in other areas, such as cash depositories, bonding and insurance, records retention, financial reporting, and so on. Our objective in each of these areas was to simplify and streamline Federal requirements.

Before the circular was developed, each agency and each program issued requirements of its own, and the cumulative burden of these requirements was crushing. The circular established a degree of uniformity and consistency in the way Federal agencies administer grants. It was applauded by the Federal Paperwork Commission, and by other groups concerned with cutting Government redtape and paperwork.

Second: With regard to audit followup, we have just published in the Federal Register a proposed revision to Circular A-88, "Indirect Cost Rates, Audit, and Audit Followup at Educational Institutions." The revision would continue the existing policy of relying on a single agency to act for all agencies in auditing educational institutions and in negotiating their indirect cost rates. It would add to those duties

the responsibility to follow up on audits by assuring correction of systems deficiencies and by negotiating appropriate resolution of questioned costs. Both these functions would be carried out in close coordination with other affected agencies.

The proposed revision is based in part on recommendations made by an interagency task force, chaired by HEW. Its purpose is to enhance accountability for Federal funds and to ease the administrative burden on universities by assuring that they will not have to negotiate separately with several Federal agencies on the same matter. It strengthens the "cognizant agency" concept.

We have also just published in the Federal Register a proposed revision to our Government-wide audit requirements, Circular A-73, "Audit of Federal Operations and Programs." The revision was called for in a recent report of the House Government Operations Committee, after hearings by Chairman Brooks, and the Subcommittee on Legislation and National Security at which OMB testified. The revision strengthens the audit followup provisions of the circular, establishes procedures for resolving major disagreements between audit and program officials, and provides a maximum of 6 months to determine agency action on audit recommendations. It calls for semiannual reports to the agency head on unresolved audit findings, and requires periodic evaluations of the agency audit followup system.

Third, with regard to a single audit guide—another part of our effort to improve grant accountability has been the development, with the GAO and others, of this standard audit guide. Our initial efforts have been in connection with grants to State and local governments, but the same approach may very well be applicable to university grants. The use of a single-audit guide would be a major breakthrough in auditing federally assisted programs. One guide would replace almost 100 that are currently in use in various Federal programs. It would eliminate the confusion that has resulted when separate guides focus attention on individual grant programs, rather than on the financial status of the organization carrying out those programs. The new approach would call for a total audit of an organization, with appropriate sampling of individual grants to determine overall reliability of financial operations.

Just last week, we published in the Federal Register a proposed revision to our Circular A-102 that would implement this "single audit" concept. The revision sets forth strengthened audit requirements for grant recipients and incorporates the standard audit guide by reference.

In addition, we are now working with the grantmaking agencies in trying to identify the major compliance features that the standard audit should test. We expect to publish these in conjunction with the final publication of our revised circular.

Fourth, with regard to inspectors general—finally, we believe that university accountability will be enhanced by a strengthened Federal audit capability under the Inspectors General Act of 1978.

This act, for which Chairman Fountain and this committee provided such effective leadership, creates Offices of Inspectors General in 12 departments and agencies, bringing the total statutory Inspectors General to 14. The President has extended the significant features of the act to the rest of the Government. In doing so, the President emphasized to the heads of departments and agencies that "eliminating

waste, fraud, and error should be as important to you as your program objectives."

The President has also recently established an Executive Group to Combat Fraud and Waste in Government. The Executive Group is to assure effective implementation of the Inspectors General Act and take other steps to combat fraud and waste in programs of the Federal Government. The Deputy Attorney General serves as chairman, and the Deputy Director of OMB serves as vice chairman of the group.

Its membership consists of the statutory Inspectors General, the Deputy Director of the Office of Personnel Management, the Special Counsel of the Merit Systems Protection Board, and representatives of the Federal Bureau of Investigation, the Internal Revenue Service, and Postal Inspection Service. Other officials are brought in to work with the executive group as appropriate. The Department of Justice and the Office of Management and Budget provide the necessary staff support.

In conclusion, we believe all these efforts, taken together, represent an unprecedented commitment by this administration to Federal accountability. It is a source of great disappointment, therefore, for us to learn from reports of the General Accounting Office, and from earlier testimony before this committee, that problems of university grant accountability persist. The Federal Government must do its part to resolve these problems—and indeed we are doing so, but we cannot do the job alone. If the Congress and the American people are to be assured that tax dollars spent on university research are well spent, those universities that now have weak systems of accountability and control will have to upgrade and improve those systems.

We do not want to saddle universities with unnecessary Federal rules and regulations. Nor do we intend to permit any lessening of Federal responsibility for the effective and appropriate use of Federal research funds. Instead, we seek to establish an appropriate balance between accountability and the flexibility needed by universities to administer research in an effective manner.

We would welcome the advice of this committee and other interested committees of the Congress on how best to strike that balance.

Thank you for the opportunity to testify, and I would be happy to answer any questions.

MR. FOUNTAIN. Thank you very much, Mr. Cutter, for a good statement of what you have been doing. I think you have summarized the meat of this whole situation in your last paragraph about not wanting to saddle universities with unnecessary Federal rules and regulations while at the same time not lessening Federal responsibility for effective and appropriate management of Federal research funds. I think that really sums up the situation. It is a question of how to work it out and how to obtain that balance.

On page 3 of your prepared statement, you state that OMB Director McIntyre has recently announced a program that bears directly on the subject of our hearings.

We would appreciate if you would send us a copy of that announcement of the program for the record.

MR. CUTTER. Certainly.

MR. FOUNTAIN. Without objection, it will appear in the record at this point.

[The material follows:]



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

MAY 7 1979

MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

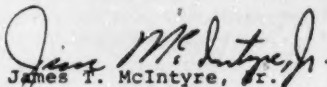
SUBJECT: Financial Priorities Program

A series of recent disclosures has revealed major weaknesses in agency systems of financial management and control.

We have already written to you about several financial issues: fund control, audit follow-up, unspent grant funds, outlay estimates, overtime abuse, and debt collection. We believe good progress is being made on a number of these issues, but we are not satisfied that sufficient priority is being given to the overall improvement of financial systems.

Therefore, we have now begun a comprehensive program to resolve the major financial issues facing the Government today. The program will focus initially on the priority issues listed in the attachment. The issues were selected in consultation with the Comptroller General, and other issues may be added as we go along. The program will be fully integrated with our regular budget review process. We have also begun work with the Office of Personnel Management to assure that these issues are given appropriate consideration in revised evaluation systems under the Civil Service Reform Act.

Over the next several months, we will be working with you and the General Accounting Office to review agency performance in each of the priority areas. We plan to meet with the heads of selected departments and agencies to discuss individual issues in detail. We also plan to put together intensive efforts to reach solutions to longstanding problems and to reduce the substantial sums outstanding and overdue to the Federal Government. In our initial meetings, we will focus on overall improvement goals, examples of unusually good progress, and any special problems. Our staff will communicate with yours to establish dates and times.


James T. McIntyre, Jr.
Director

Attachment

Financial Priorities

- Accounting systems: a commitment to get General Accounting Office approval of all systems.
- Internal control: upgrade control systems to reduce the risk of fraud, abuse, waste, and inefficiency.
- Cash management: build upon the work of the President's Cash Management Project.
- Audit follow-up: resolve findings promptly and properly, and hold down backlog.
- Outlay estimating: improve accuracy and timeliness.
- Debt collection: proper accounting, and prompt aggressive collection action.
- Overtime: accurate accounting, and tighter control.
- Grant financing: increase use of letters-of-credit and electronic funds transfers, and recover unspent funds.
- Grant accountability: full implementation of cost principles (Circular A-21, 74-4, etc.) and standard administrative requirements (A-102, A-110, etc.).

Mr. FOUNTAIN. On page 4 of your statement, you list a number of examples in the latest revision of OMB Circular A-21 where the universities will benefit from reduced paperwork. This list includes "a monitored workload method of keeping track of personnel costs that requires far less reporting while retaining strict control."

In earlier testimony before this subcommittee, witnesses testified that the monitored workload method is optional and has certain questionable aspects which cast considerable doubt on its acceptance by the universities. The regulation, which appeared in the Federal Register of Tuesday, March 6, 1979, under the caption, "Monitored Workload," states "Under this method the distribution of salaries and wages applicable to sponsored agreements is based on budgeted or assigned workload, updated to reflect any significant changes in workload distributions."

When the witness was asked what was meant by "significant changes," he was not able to state what changes would be regarded as "significant" in workload distributions.

Can you tell us what "significant changes" in workload distributions embraces? When is a change significant for purposes of updating, and when is it insignificant?

Mr. CUTTER. Certainly.

Again, it is a qualitative question, and I will not be able to do it with precision.

Let me start with a generality. It is precisely, I think, in dealing with these specifics that the tension at the end of my statement begins to have effect or to be applied. In dealing with the monitored workload question, and in many of the major questions with respect to Circular A-21, I personally negotiated most of OMB's position. So, at least on these major questions, I am personally familiar with the issues that have arisen.

The tension was between the development of the system which would require less paperwork and would, in fact, require less unnecessary detail than time and effort reporting but would, at the same time, provide the necessary assurance to the Federal Government that the workload which was reported initially was the workload carried out for the purposes of cost standards and costing in general.

Our judgment with respect to what was significant was that the ultimate determination of that would have to be left, on the basis of a reporting system, to the institution and the audit agency, which, in most instances, would be HEW. But reports would have to be submitted at least every 6 months and would have to be signed by a responsible official of the university, indicating that significant changes had occurred.

It was our judgment that, while it was imprecise, it did a couple of things: it indicated that changes should be flagged when, in the understanding of the institution, they were significant; it provided a frequency of reporting which would permit no excuse for not flagging important changes; and, at the same time, it permitted, I think, a certain amount of variance by not defining precisely what "significant" was.

We have all managed things; I manage a major portion of OMB, and I have managed in the private sector. As a general rule, while I

could not, in many, many instances, tell you what "significant" was precisely or what "material" was when that was the term, nevertheless, as a manager I can identify when it occurs and when I have to make a significant change in the way I allocate time and the way I allocate people.

Mr. FOUNTAIN. I realize that at times we have to use words like this—

Mr. CUTTER. Sir, if I could interrupt for 1 second, Mr. Lordan has told me that we also provided examples in the circular, itself, and we could provide those to you for the record.

Mr. FOUNTAIN. We would be glad to have those because, when you use such a word as "significant," unless there is a meeting of minds as to precisely what is intended, at least in substance, you can see the potentiality for confusion and controversy. I think that was the tenor of what we heard yesterday.

Without objection, it will be included in the record at this point.

[The information requested follows:]

The system will provide for modification of an individual's salary or salary distribution commensurate with any significant change in the employee's workload or the ratio of activities comprising the total workload. A significant change in an employee's workload shall be considered to include the following as a minimum: when work begins or ends on a sponsored agreement, when a teaching load is materially modified, when additional unanticipated assignments are received or taken away, when an individual begins or ends a sabbatical leave, prolonged sick leave, or leave without pay, etc. Short-term (such as 1 or 2 months) fluctuation between workload categories need not be considered as long as the distribution of salaries and wages is reasonable over the longer term such as an academic period. Whenever it is apparent that a change in workload will occur or has occurred, the change will be documented over the signature of a responsible official and, if significant, entered into the system.

Mr. FOUNTAIN. Are you satisfied that this regulation is sufficiently clear and adequately specific so that it will not generate troublesome controversy between the universities and the Government auditors?

Mr. CUTTER. It is a rash person who ever says he is satisfied with a Federal regulation being sufficiently clear to avoid controversy.

I guess what I can say is that we have spent a great deal of time trying to make it clear. My own discussions with both HEW and university administrators were, in part, an attempt to resolve significant issues that they raised but also an attempt to identify and resolve simple problems of clarity. We tried our best to resolve them wherever we saw them; we did not always resolve them in ways that pleased everybody, but we tried our best to make sure that they were at least clear.

At this point, I would say that I am relatively pleased with the way we came out, but I would not for a minute say that there are not going to be points of lack of clarity and disagreement where we will have to look at the interpretation.

Mr. FOUNTAIN. One of the favorite words of a member of our staff is "significant," in preparing memoranda for me. I say, "Jim, what are you talking about? What do you mean?" With reference to specific situations, he can clarify it, but a lot of people have a different interpretation of what it is, depending on where they sit. That is why it is so important to be sure that everyone understands it.

Statements of earlier witnesses indicated that the use of a monitored workload, being optional, few of the schools have indicated a prefer-

ence for it. Do you have any data to indicate the number or the percentage of the schools which have declared their intention to employ the monitored workload option in reporting personnel costs?

Mr. CUTTER. Not yet. We are beginning to get scattered examples, but we could not give you a definitive answer yet.

Those negotiations were, once again, around the themes of freedom of control. I think the universities' judgment was that the system we began to move toward was too tight and restricted to provide them with, in a sense, the freedom that was the principal attraction of a monitored workload method as opposed to time and effort reporting.

Originally, HEW and, as you well know, the GAO view was that we were moving too far away from control and too far toward freedom.

We adopted a number—I think five or six—of the GAO's suggestions in this respect and moved, I think, fairly far toward control, trying to retain a system which did provide more freedom and less paperwork. It was one of those situations where none of us left the table entirely pleased. We were fairly happy, but I do not think the universities were ecstatic about our resolution of that. But we felt it was a fair resolution and one which, when given a trial, would be regarded as preferable to time and effort reporting. To put the bottom line on it, we are beginning to see a scattered sense of acceptance, but nothing statistically significant.

Mr. FOUNTAIN. Also, in the list of examples of benefits to educational institutions, on page 4 of your prepared statement, you cite "a reduction in the frequency of faculty time and effort reports."

What is the frequency of these reports under the presently operative regulations, and what will the frequency be reduced to under OMB Circular A-21 when it is fully effective?

Mr. CUTTER. It used to be monthly; it is now by academic term, but at least twice a year.

Mr. FOUNTAIN. Not annual?

Mr. CUTTER. No, sir.

Mr. FOUNTAIN. How will this reduced documentation of the time which faculty members devote to Government research help, in your opinion, and based on the discussions all of you have had together, remedy the inadequate and unreliable documentation that HEW now finds in its audits?

Mr. CUTTER. There are two parts to my answer. The first part is specific to your point.

It is my sense that reporting on that basis as opposed to more frequently permits an averaging out over a period of the work, as opposed to perhaps over-exaggerated emphasis on the experience of any given month. Again, my own sense is that an accurate picture taken at wider intervals frequently provides one with a more valid sense of the way in which work is distributed than a very frequent report.

If I can generalize for just a second on a slightly separate point, we were a little dismayed by the reports of HEW of the difficulties of documentation. Our sense would be that there are obligations of the Federal Government in this respect, but there are also obligations of the recipients. After defining the fairest possible system we can define, making substantial effort to provide for flexibility and provide for alternatives, there is an important obligation resident in the univer-

sities to develop accounting systems and control systems which enable them to deal better with the taxpayers' money.

We also have the firm sense—to put the bottom line on this—that while the Federal Government has an obligation to be clear and reasonable and provide alternatives and opportunities for flexibility, the recipients of Federal money also have a clear obligation to be rigorous and disciplined.

Mr. FOUNTAIN. I would agree with you on that. I think we ought to provide a minimum of redtape and requirements so long as we can, at the same time, obtain an indication of maximum responsibility on the part of the institutions.

Is it your feeling that time or effort records made many months after the work is to be performed are likely to be more reliable than monthly activity records? I know it eliminates some paperwork, but I am thinking about reliability.

Mr. CUTTER. Let me make two points on that. While the reports need to be submitted to the Federal Government on that basis, the records can be kept on any basis that the auditing agency and the institution agree on.

The generalization of that point that I would make is that when one is talking about the frequency of reporting differences between 12 times a year and 2 times a year, I think one is really talking about the quality of control systems and not about the passage of time. My own sense is that one can develop an adequate, disciplined control system that quite adequately reflects time and effort over a 6-month period.

If it were a matter of years—which it is not—then I think there would be a very real problem.

Mr. FOUNTAIN. Revised Circular A-21 requires that:

The accounting practices of individual colleges and universities must support the accumulation of costs as required by the principles and must provide for adequate documentation to support costs charged to sponsored agreements.

Does not the currently operative Federal Management Circular, FMC 73-8 which OMB A-21 will replace, provide for the same adequate documentation to support costs charged to sponsored agreements?

Mr. CUTTER. Perhaps Mr. Lordan could answer that.

Mr. FOUNTAIN. Mr. Lordan?

Mr. LORDAN. Yes, sir, I think the same basic provision is in Circular 73-8. That is the principle that runs throughout the various sets of rules that we have—those for State and local governments, those for contractors, those for universities. I think we have highlighted it a little more clearly in Circular A-21. I believe that highlighting adopts language proposed to us by the Department of HEW.

Mr. FOUNTAIN. What is the basis for Mr. McIntyre's reference—and I am not indicating disagreement but simply asking for the purpose of getting the record clear and having an understanding of his intentions—to the new cost principles as "tight new rules," as you state on page 4 of your prepared statement? How will they bring more uniformity to university accounting when the same requirements in the predecessor circulars did not accomplish this, according to testimony of our witnesses?

Mr. CUTTER. A concern of ours, of HEW's, and the GAO's, and the subcommittee's, throughout our development of A-21, was that we arrive at the end at a method which reasonably attempted to define very clearly what the Government was getting when it made research grants. That should be divided into basically two aspects: What it was getting in terms of research and what it was buying in terms of the ancillary charges which need to support research—indirect costs.

What I think that Jim meant by "tight new rules" was that the system that A-21 attempts to define in a large variety of areas, with more precision than had previously been the case, exactly how one would apply cost allocations and cost standards. It also attempts to narrow the range of alternatives with respect to any given question.

On the basis of personal experience, in the process of the discussions and negotiations, this was always the stickiest point. Since these rules had really not been revised since the late 1950's, we were trying to apply some standardization across the board. It was frequently the universities' point that by making what would seem to us to be cost changes and accounting changes, we were interfering with the fundamental functioning of a university.

While we did not agree with that point entirely, we did agree that the requirement of consistent cost standards does, in fact, imply a restriction. It is in that sense that Jim McIntyre meant tighter, and in the sense that the rules had not been looked at for almost 20 years, it was certainly new.

Mr. LORDAN. Moreover, Mr. Chairman, with respect to the individual items of cost which are spelled out in paragraph (j), the 44 individual items, I think you will find a significant tightening of definitions of categories of classes and a better specification of the provisions. We are allowing depreciation expense, equipment charges, and a whole range of issues covered by those 44 items. I think you will find them considerably tighter than the earlier definitions.

Mr. GOLDHAMMER. Is that part of the regulations?

Mr. LORDAN. Yes, sir, it is.

Mr. GOLDHAMMER. Published in the Federal Register of March 1979?

Mr. LORDAN. Yes, it is—a series of 44 items in paragraph (j).

Mr. GOLDHAMMER. On what page?

Mr. LORDAN. It begins, sir, in the Federal Register version of the circular on page 12374.

Mr. GOLDHAMMER. Thank you.

Mr. FOUNTAIN. You made reference to the fact that the revision would retain the existing policy relying upon individual items. I had gotten the impression that this was a new approach, but this is what they have been doing all along.

Mr. CUTTER. Yes, sir.

Mr. FOUNTAIN. A GAO witness testified that revised Circular A-21 "Like its predecessor, merely establishes the principles for determining costs applicable to grants, contracts, and other agreements with educational institutions."

Would you care to comment on that statement? Do you take issue with it—"merely establishes principles for determining costs applicable." and so on?

Mr. CUTTER. Yes, sir. That is what it is supposed to do.

Mr. FOUNTAIN. The GAO witness further stated that:

For the circular to be effective, the accounting practices of the educational institution must support the accumulation of costs as required by the principles and must provide for adequate documentation to support costs charged to grants and contracts.

In other words, as I interpret this testimony, what the witness told us was that the success of A-21 would depend upon the extent to which the universities will adopt the principles and abide by them. This prompts me to ask whether the universities have given you any kind of assurance that they will. Has there been any variation in the kind of assurances they have given you, or have they raised questions about their ability to give those assurances?

Mr. CUTTER. I certainly have had no sense of an unwillingness to adopt and abide by them. I think the question is the existence and capability of cost and accounting systems sufficient to do that satisfactorily.

We have certainly seen examples in the HEW testimony and in GAO findings—that there are places where those systems have not been as satisfactory as we would like them to be. It is for that reason that we have also been interested in Circulars A-88 and A-73 which attempt to define, not simply the costing principles which A-21 deals with, but also the responsibilities of the auditing agency for a system definition to the specification of deficiencies in costing and accounting systems and for followup, both to correct individual audit findings and problems and also to correct system problems. It is clear that that is a continuum. The principles alone are not enough.

The universities have participated indepth in the development of the circular and have indicated a complete willingness to abide by it.

What we have to do next, and what we have attempted to do in the other circulars, is to define responsibilities and followup procedures so that, in fact, the principles get incorporated into action.

Mr. FOUNTAIN. One of the basic things that has concerned GAO and HEW, and which concerns us as Representatives in the Congress who have to provide the funds, is this: In a great many instances, involving substantial sums of money, the auditors say they cannot tell whether the money has been expended wisely, whether it has been wasted, or whether it has been spent improperly, because they simply cannot find the documentation showing how it was spent—no documentation whatsoever for the expenditures.

Dr. GOLDBERG. Some of the audits made by HEW, if I remember, show that the pool of money for which expenditures could not be validated represented 50 percent of the total.

Mr. CUTTER. We were clearly distressed, as I indicated toward the end of my testimony. I would only say that there are many universities which do, indeed, have fine accounting systems, and there are many financial managers of universities who are as good as financial managers anywhere.

We are distressed by the existence and the prevalence of problems and the persisting nature of some of these problems and have welcomed your efforts to improve the situation. We have felt that what we require is a continuum of effort, from the definition of "principles" to the definition of "responsibilities," to deal with the problem.

Mr. FOUNTAIN. Mr. Wydler?

Mr. WYDLER. Mr. Chairman, let me see if I can get something straight here.

The statement you made is a good statement, and everybody agrees with the desire to get a better system and to do it without putting an unnecessary burden on the universities.

I am not clear in my own mind, however, on where you came down in this statement. You allude at one point to the fact that you have managed to do this and still give the universities less work than they had before. Are you telling me that under the new, revised system you have now instituted, there is less work for the universities to do than before, or are you telling me there is more work to do now that you have the new system? Which is it?

Mr. CUTTER. My own judgment—and it is only mine, and it is also a judgment in advance of the fact because we have not seen it at work—is that, in terms of work, there is probably less, but in terms of precision required and consistency of definition and overall consistency—

Mr. WYDLER. To be precise requires a great deal of effort. It is easy to talk about “substantial,” and it is very hard to talk about the little details which usually take a great deal of time. Precision is very time-consuming and very arduous in anything in life. It is easy to do something on a grand scale; it is very hard to do it on a precise scale.

Mr. CUTTER. That is not what I meant by “precision.”

Mr. WYDLER. I do not understand what you are saying, frankly. I think the workload is directly proportionate to the precision that you require, is it not?

Mr. CUTTER. That was not what I meant by “precision.” By precision, I did not mean carrying things out to the “nth” decimal place. What I really meant was precision of definition with respect to cost allocations.

We have, I think, made it much clearer what we would accept as an indirect charge on research, for example, and what we would not. It is in that sense, in 44 different areas, that we have a more precise and more consistent set of cost standards, I think.

With respect to the work required to develop a cost accounting system, my own sense would be that the work is less. There clearly may be disagreement with that. But the items that I mention on page 4 of my testimony are the kinds of examples that I posed to you as things lessening the amount of work.

Mr. WYDLER. To a certain degree—and I suppose it is inevitable—you are going to be chasing a rainbow in trying to get a system that changes much because you can make all the precision requirements you want; it is up to the ingenuity of the person filling out the form to come within the definition that you set forth instead of doing it the way he might have been doing it in the past, which would not come within those definitions. But he has to change things around a little bit the way he reports it and the way he does it to fit it within the requirements.

The thing that gets me here is we are spending a lot of time and effort—it seems to me—to try to make the public feel good by saying:

Well, we have a lot of good reports from these universities; we can open them up—nobody will but we can if we have to—and look at the page and have all the

right numbers in there; it will add up to the right total for the grant at the end of the report; therefore, we have really protected the public in what they are getting.

Yet, I do not think that is what the Government is buying. That is what bothers me about it. I think what the Government is trying to buy here is the result. That is what we really give money to universities for, at least as far as I am concerned. I do not want them to send me a lot of reports saying they have spent the money in accordance with the application. I want to see what they gave us for the expenditure of the money in the bottom line. That is what I am interested in—"What did you do with it? How did you advance the cause of mankind? How did you improve the research and development in this particular field? What did you do for us, not how well did you account for it?" They might have accounted for it perfectly and wasted every nickel.

That, to me, seems to be the bottom line here, and I am not sure I understand the connection between what we are doing with all these reports and that. I do not see where those two things are the same at all.

Mr. CUTTER. But that is the basic pull and tug in this whole effort.

I guess in some respects I am the relevant person to raise that point with because I manage the entire budget process out of OMB. Therefore, while I have spent significant amounts of time on the A-21 development, I also spent a heck of a lot of time on the development of the basic research budget for the Federal Government, almost all of which goes to universities.

While, in the course of these proceedings, it may not seem the case, I feel as strongly about the importance of a consistent, constant effort in basic research for this country in light of our problems with declining productivity, the declining rate of patent development, and all of the concerns that have been voiced in other places and by other people. I feel strongly about that and about the Federal Government's responsibility for that, as strongly as I do about these kinds of concerns.

There is, in fact, a pull and tug between our desire to get research and our desire, on the other hand, to make absolutely certain that we know what we are buying.

I think the Federal Government has responsibilities for both, and I do not think it can avoid either. We could not avoid an attempt to develop a rigorous and disciplined system of cost standards, cost accounting, audits, and an attempt to assign responsibilities, and then to enforce responsibilities in that area.

Also, we cannot avoid spending resources in this area—you are absolutely right.

A further difficulty of this is that all of this comes together with respect to an institution that I think we all want to be careful about, which is the university. The university is not a government, and it is not a business; it is a center of learning, and it is intended to be a center of free discourse and uninhibited ideas. We do not want, as a Government, to micromanage and determine the shape and direction of an institution by insensitive accounting rules.

On the other hand, we want to know what we are buying, and we want to assert our responsibility, and we want to have the recipients

of the funds that we are spending properly accepting their responsibility. We want to be able to say to you and to the taxpayer:

Yes, we fulfilled our responsibilities in the sense of allocating funds to research so that we can continue technological process and productivity, but we have also fulfilled our responsibilities in being able to tell you where the money went.

Mr. WYDLER. It is clear, however, that it is not just to send in a good accounting report. That is the thing that makes me a little nervous here.

In other words, the university might get the feeling that their only responsibility to the Federal agency that is supposed to be getting the benefits of their research is to see that the money was spent in accordance with the rules we have put forth, so that they have filled out a nice report which we can add up, and if it adds up right, that is fine.

But there is supposed to be some other review of what is going on here. That is not the really significant part of the review. The important part of the review is the performance, not the accounting.

Mr. CUTTER. Well, I would amend that.

Wearing my other hat, when I chair the reviews of the program agencies I lean fairly heavily on results. This is not to say that we try to make some judgment about what a research project of high energy physics, the terms for which I can barely pronounce much less understand, should result in. But we do try to make certain that those systems exist as well.

But I would argue that, in general, while one can look at any given system of cost allocation and say, "That is pretty green eyeshade in relationship to the overwhelming importance of the end result." I think, in general and across the board, a systematic, rigorous effort to make sure that we spend our money in the way we want it to be spent is as important in governance as is the concern with the end product.

Mr. FOUNTAIN. I agree. You have to have it to enable those of us who have responsibilities in Congress and in the executive agencies to have trust in what is being done.

Mr. CUTTER. That is exactly right.

Mr. FOUNTAIN. You may have 8 or 10 years of research with seemingly no results, and you may think the money has been wasted. But the important thing also, in addition to results which you may or may not get, is to be sure that during those 10 years, an effort is made to spend those funds for the purpose for which they are intended—to try to get the results which are set forth as an intention in the initial application. We know a lot of money is spent on research which does not give the results hoped for.

We will have to take a recess for a vote and will be back in just a few minutes.

The subcommittee stands in recess for about 10 minutes.

[Recess taken.]

Mr. FOUNTAIN. The subcommittee will come to order.

Some of our questions are to give us the benefit of what has transpired.

Before promulgating these regulations, had you consulted with the HEW Audit Agency to ascertain the identity of the schools apparently successfully meeting the accountability requirements, as evidenced by the fact that consecutive audits over a 3- to 5-year period revealed no exceptions?

The reason I ask that question is this. The day before yesterday, Mr. Stepnick of the HEW Audit Agency said that there are schools that consistently meet the accountability requirements; and the staff of the subcommittee, in its review of 150 to 200 audits made by the HEW Audit Agency and the Defense Contract Audit Agency, observed many schools, both large and small, which have had no problem in meeting the accountability requirements.

My next question, which is really part of the other question, is this: Did you make any attempt to identify schools in compliance for the purpose of ascertaining why those schools could meet the requirements and did meet the requirements?

Mr. CUTTER. Not with respect to the development of A-21. We dealt with HEW throughout the process of looking at A-21. Indeed, we were working from an initial version of their proposed revision. But the problem that you have raised is, I think, a different one.

In A-21, we dealt with the principles and the degree to which a university or college has a system which enables them to come into compliance and to meet standards of accountability. This is an issue that we would look at and would want to have looked at with respect to some of the other circulars I have mentioned.

Mr. FOUNTAIN. I asked two questions at once, which I did not intend to do. Let me repeat the second question.

Did you make any attempt to identify the schools in compliance in an effort to determine why those schools were able to meet the requirements and did meet the requirements?

Mr. CUTTER. Not in the process of doing A-21. We deal much more with the principles.

Mr. FOUNTAIN. Do you think it is necessary or advisable to consider, let us say, the secret of their success as compared with some of the others before finalizing the regulations?

Mr. CUTTER. I would want A-21 to be finalized because that is, again, a question of cost principles.

I think the different experience of colleges and universities and the different degrees of success in developing systems that they find acceptable and so do we—we, in this instance, being the Federal Government and the auditing agency, not just OMB—is, something that should constantly be looked at.

Mr. FOUNTAIN. On page 5 of your prepared statement, you mentioned the revision of your Circular A-110. An HEW official testified yesterday that, in general, A-110 is an improvement, but he reported that there are several parts that have turned out to be controversial in HEW. He added:

For HEW, probably the most controversial change brought about by the circular (A-110) is in the area of financial reporting. Many of our project grant programs were accustomed to getting financial reports from grantees that included breakdowns of costs by object of expenditure categories—such as salaries, supplies, and so forth. Under Circular A-110, Federal agencies are no longer allowed to require such breakdowns. . . .

The HEW official further testified that in addition to the elimination of the requirement for the categorical breakdown of expenditures in ROE's—reports of expenditures—revised Circular A-110 also changed the frequency of furnishing ROE's by universities from every 3 months to once a year.

I gathered from what you said earlier it was every 6 months.

Mr. CUTTER. This is a different one.

As I understand it, we talked a little bit about this while you were voting. The frequency issue is this. I think it was every quarter prior to the revision and it is now. My understanding is that the frequency was not changed and that the testimony was in error. I think that is accurate. That is my understanding.

The object class issue is a different question. We do allow object class information to be required as part of the application's process, my judgment being that an analysis of that kind of a budget organized that way—by object class—or the examination of such a budget in the course of deciding upon an application, is one useful and important way of deciding on the appropriateness of the costs and funds requested by the applicant.

What we have not allowed in the Circular A-110 is the collection of object class information after that. The reason for that is something to do with both what we require in other respects and the history of it. We first began to look at that with the object of standardizing object class information requests because our sense was that they were being requested in a variety of different ways and the burden was fairly heavy.

My information is that, across all the agencies, we were requesting about 103 different object class categories.

As we began the effort to standardize, it became increasingly more obvious that object class information at the start of a project is useful in arriving at a judgment. However, when the data collection was being required after the grant had been made, it was being collected and nothing was being done about it. It did not seem to be a useful kind of information to collect.

Our further judgment is that there are already restrictions on how grant money can be used. The new A-21 defines, with considerably more precision than in the past, standards of cost allocation and of costing that we will allow.

If a budget is to be changed by more than 5 percent—and Circular A-110 requires this—then a revised budget has to be submitted upon which we can make judgment. In specific areas—travel and equipment purchases, for example—there are detailed limitations, and then, finally, there is an audit at the end which would require the maintenance of a cost system of sufficient quality to sustain the charges.

On the basis of all of that, our judgment was that the object class information, as it had been collected before, had not been used usefully, was not likely to be used usefully, and there were requirements of other kinds which were far more than adequate in terms of dealing with the gathering of sufficient information of this kind.

Mr. FOUNTAIN. Dr. Goldberg?

Dr. GOLDBERG. Thank you, Mr. Chairman.

The subcommittee staff received a contrary representation from one large institute at NIH, and I think it can safely be said to a lesser degree from a second, that the categorical breakdown in the ROE's has been used over a period of years for management purposes. The extramural management staff used those ROE's for the purpose of ascertaining the flow of project expenditures by categories.

If they found, for example, that in certain institutions the amounts budgeted for personnel or travel were being underspent, they assured us, and showed us some evidence, that they actively pursued this matter with the institution for the purpose of reallocating the unspent money for funding additional projects.

They represented to us that they actually were getting more research performed for the same dollar amount by this management tool which they no longer would have available.

Have you received any such representations from NIH?

Mr. CUTTER. I cannot remember specifically from NIH, but there were clearly disagreements with this. HEW initially disagreed.

My sense now is that HEW is pretty well satisfied with A-110. And I think it is, again, a question of how far you go.

In my own management experience where I have had to use cost accounting data and management information systems extensively, I would personally regard object class information as not particularly useful.

In A-110, the whole question was resolved—and I do not want to use the “not on my watch” argument—long before I joined OMB. Nevertheless, I would probably make the same decision. I do not personally regard it as useful management information. In fact, while this may be evidence on one program out of literally hundreds, my own sense is that it is a burden out of proportion to the value one would get from it. The more one would use that kind of data, the more one would have to get into micromanagement of the projects, which is not, I think, something that any of us would want the Federal Government to be doing.

These other sets of requirements are, in fact, very adequate safeguards. We would hope that the result of all of these would be both refined control, a somewhat greater definition of “responsibilities,” and more research for the Federal dollar. But I would not want to do it by auditing paper towel expenditures.

Dr. GOLDBERG. You may very well be right that the instances in which information on expenditure by object class is used as a management tool is a relatively small percentage of the total. In terms of money expended, it may be a different matter, because the institute I am referring to is the second largest at NIH, and NIH is the “big daddy” of Government expenditure for health research. So, we may be talking about a very large amount of money.

Perhaps we should try to bring the folks who have been using this as a management tool together with your staff, and see whether there is a case here that has been overlooked.

Mr. CUTTER. We can certainly do that. If you would like, we can go ahead and do it.

Mr. FOUNTAIN. Was the prohibition in Circular A-110 against Federal agency requirement of a breakdown of expenditure reports by category motivated, to any extent, by cost saving considerations?

Mr. CUTTER. I do not think it was a cost saving consideration in that direct sense. I think it was more a concern about paperwork and a sense that the effort involved was not worth the value one received.

Mr. FOUNTAIN. Yesterday, I placed in the record documents from HEW files, among which is Mr. McIntyre's April 20, 1978, letter to

Secretary Califano. I understand from now on it will be Secretary Harris.

Mr. CUTTER. Yes, sir.

Mr. FOUNTAIN. This letter denied his request for an exception to Circular A-110 to permit categorical expenditure reports on grants to universities, hospitals, and other nonprofit organizations. Are you familiar with this letter?

Mr. CUTTER. Yes, sir.

Mr. FOUNTAIN. Among the documents placed in the record was a document from an NIH unit reporting the results of a survey which polled a number of contract and grant office directors at universities throughout the country to determine their preferences with respect to the old and the new report of expenditure requirements under revised A-110. According to the NIH officials, most of the schools had no objection to the old requirements and, in fact, preferred them.

Are you aware of the NIH letter and the results of the survey? I am asking a question; I do not mean to indicate I am advocating one viewpoint or the other; I am simply asking for purposes of background and the basis on which the decision was made.

Mr. CUTTER. I am not aware of the survey, no. I have the letter to Secretary Califano in front of me.

Mr. FOUNTAIN. Do we have the document?

Dr. GOLDBERG. Yes, we have it.

Mr. FOUNTAIN. We might give it to Mr. Cutter for whatever use he might want to make of it.

Mr. CUTTER. Mr. Lordan is aware of it, and he has a copy.

Mr. FOUNTAIN. Recently, the subcommittee staff had occasion to interview a number of NIH program officials. During the interviews, it became quite clear that these program officials, in particular, feel very strongly that they have lost an important monitoring tool by the new ROE regulation in Circular A-110, which is a little bit different attitude from what I found many years ago when we made the first study. I think, of that agency that had ever been made by a congressional committee.

In addition, in testimony before the subcommittee on Tuesday, a GAO representative testified concerning the August 18, 1978 GAO report entitled, "Federally Sponsored Research at Educational Institutions: A Need for Improved Accountability." He stated that widespread misuse of Federal research dollars reported by HEW and the news media is occurring.

The GAO report, in its conclusions and recommendations, stated that the misuse of Federal research dollars can be minimized through more oversight by grantor agencies with respect to how research moneys are being spent. NIH feels that its oversight with respect to how research moneys are being spent has been weakened by the new ROE regulation. In effect, the force of GAO's call for more oversight has been frustrated, they indicate, at least in part, by the A-110 regulation requirements for reports of expenditures. I think we would appreciate your comments as well as an explanation for your denial of HEW's request for an exception to the regulation.

Mr. CUTTER. Yes, sir. Let me give both the general reasons for a denial and then a comment on the overall point.

The reasons for the denial, in addition to the specific points I have made in the conversation with Dr. Goldberg, were that A-110 does ask that information be collected and categorized by program and by activity as opposed to by object class. Our judgment is that this is, in important respects, a more valuable means of gathering data, qualified by the kind of exceptions for very sensitive items as purchases of equipment, travel, or major changes in a budget.

What we really care about, following the comments of Congressman Wydier, is what they do, not what they buy in order to do it. Although, once again, as I have said, we qualify that by wanting to see major changes in the budget, by having specific limitations in specific areas, by having cost standards, and by having audits.

Within the framework of that kind of control, which I think is substantial, we would prefer reporting systems and management systems and control systems, both in the universities and here, focus somewhat more on the nature and value of the program, as opposed to the various bits and pieces that go together to make up the program.

I have two comments—one philosophical and the other, I think, a response to the points you have raised.

The history of the Federal budget as a whole has followed this trend. In the early days of the Federal budget, after the 1921 Budget and Accounting Act, for years, the budget was basically perceived by the Congress and by the Executive as essentially a "green eyeshade" device. As a matter of fact, if you look back in the record, you will find fascinating comments by budget directors in the late 1920's who argued that their job does not have anything to do with why Federal moneys are spent. They are really the "green eyeshade people in the basement," counting the paperclips.

That, decidedly, is not the viewpoint about the Federal budget today.

I probably testify 40 times a year, and I would be surprised if, in any of them, the issue is "How do you do object class budgets with respect to program XYZ?" It is much more, "How do you define this program? What do you get for this program? Why did you choose to cut it, or do away with it? Why are you defending increases in it?" This is from a policy and management point of view, not from an object class point of view.

So, in a sense, this follows that general trend, and my own judgment is that it is a wise trend.

Following the more specific point that you raised, my own sense is that the ability to assure accountability and to develop a sense that the Federal Government knows what it is buying is fostered far more by process and by systems than it is by a particular kind of accounting.

What we need are firm definitions of the principles under which we will require accounting for our costing principles, which A-21 provides, and firm definitions of the responsibilities and the manner by which the Federal Government will carry out audits, which A-73 and A-88 begin to attempt to approach. Also, we need firm standards with respect to the responsibilities to do the audits and to follow up on findings with respect to them, both when we see systems problems—costing and accounting systems that are simply not adequate—and when we have individual problems, particularly cost categories that were not as we would like them to have been.

So, what I think we need are principles, systems for applying the principles, and systems for following up when systems are applied. I would regard a relentless effort to define and to improve those areas as far more important than object class reporting.

I do not want to put too hard an edge on this because it is not something that any of us are falling on our swords about, but my own sense would be that anyone in the Federal Government who says to you that the absence of object class reporting is the reason why Federal accountability is not as good as it should be simply does not understand the problem. That is simply not the problem.

Mr. FOUNTAIN. How would your new regulation take care of complaints such as the one we had by one of the scientists who said before our subcommittee—and I would guess there would be some others, but these are more or less examples and how prevalent they are I do not know—that he had no way of knowing how the research money, which he had applied for and justified in his application, was being spent? In fact, one was being asked repeatedly to sign a blank report form, and others were going to fill in the information.

Apparently, some of the indications were that research moneys were spent for other purposes—maybe good purposes but not the purposes for which the funds were intended.

How will the researcher know that he is getting what he needs to do his job in terms of dollars?

Mr. CUTTER. First of all, I would say that I do not think object class reporting would help that researcher, if the cost systems of the universities are so bad and the researcher's own understanding of the obligations he accepts when he undertakes a grant are so imperfect that he is willing to sign a blank sheet. I learned very early in my career that you do not sign blank checks. If there are major researchers in our universities who do this, I think they need courses in the law.

Mr. FOUNTAIN. He said he was fired because he would not continue signing them.

Mr. CUTTER. That seems to me to be evidence of a deficient accounting system, regardless of what kind of cost information is defined. I would argue that that accounting system should not focus on object class reporting, at least in terms of the kinds of reports made to the Federal Government.

But I certainly would not argue that the university does not have the responsibility to maintain a rigorous accounting system and the university should not present blank signature sheets to the principal investigators, and principal investigators should not sign them.

Mr. FOUNTAIN. If a college or university has a responsible accounting system, is there any way that Federal auditors can examine and inspect that accounting system to determine substantially whether or not the funds—the Federal grant funds—are spent for the purpose for which they were intended?

Mr. CUTTER. Yes, sir. They have that responsibility.

I think it is Circulars A-73 and A-88 which are more precisely on point. They focus on and define the cognizant agency's responsibilities somewhat more precisely, I think, and reinforce the principle of the cognizant agency. Then it says that the agency is responsible, both for noting and correcting or attempting to correct significant problems with respect to the accounting and control systems and significant individual problems with respect to audit findings.

So, I think there is a means by which the Federal Government and the auditing agency can find the problems you mention and that there is a responsibility now pinpointed for them to do something about it.

Mr. FOUNTAIN. Would that detect prohibited or improper cost transfers?

Mr. CUTTER. Yes, sir. That is precisely the kind of thing it would be designed to detect.

I was dismayed, in reading one of the GAO reports, with some of the cost transfers that had been reported. Those were clearly improper, and clearly a system of audit and audit followup should note and affect those judgments.

Mr. FOUNTAIN. Apparently that has gone on for a number of years. They have been told about it, but nothing has been done about it.

I agree, essentially, with the thrust of what you are attempting to do. What concerns me is the number of situations where auditors go in and say, "We simply do not find in the records documentation of the expenditure of any of these funds."

How will your system take care of that?

Mr. CUTTER. I have two comments.

First, we have defined the principles, and it is now the responsibility of the cognizant agency to undertake the audits. We have defined audit responsibilities quite clearly, I think, under Circular A-73, and under A-88 we define the responsibilities, particularly with respect to universities. It is the responsibility of the agency to undertake the audits and to follow up on problems noted.

Clearly, if it is not simply a case of there being isolated differences in an audit which have to be resolved by negotiation, which are the kind of thing which accrue in any system, but there is a system breakdown to the extent that literally 50 percent of the costs cannot be explained, that is a system breakdown. It is at that point, I think, the responsibility of the agency to flag that and, if necessary, to make it an important element in their awarding of grants.

Mr. FOUNTAIN. I think I made reference to what some of the university people said yesterday in their expressions of concern. I do not know how detailed they were. Having to preside and ask questions, I may have missed some.

Do you recall, Dr. Goldberg, what their basic objection is to the new approach?

Dr. GOLDBERG. The emphasis, as I understood it, was placed upon the detailed reporting under the monitored workload system which they had originally advocated, the detail of documentation that would be required. The contention was made, if I remember correctly, that contrary to their expectations, OMB is requiring that insignificant changes be reported.

I have no clear idea as to what a significant or insignificant change is. We really received no definition on that score.

Mr. CUTTER. First of all, forgetting the difference between significant and insignificant—I will get to that in a minute—the monitored workload system, as we eventually defined it, clearly implied more control than the monitored workload system that the universities would have preferred. There was simply a different judgment. We sit in a different place, and it was a different judgment as to responsibilities.

I think that in our first revision, the GAO reported we were not sufficiently far along toward that point, and we moved fairly far towards GAO's viewpoint.

So, the system as we have defined it, while I think it provides a clear alternative to time and effort reporting and involves less paperwork, does at the same time involve more control than alternatives one could imagine. But it is the system as we have defined it.

The application of that system, which might be the point at issue now, is this. Obviously, fundamental to all of this is, if a principal investigator defines a workload in advance, and that is the basis upon which the estimate is made, how does one change—on what basis does one change that over time? The reality is never as one had predicted.

If we are going to require, or if the auditing agency is going to require that every insignificant change be the basis for complete change, then we have not made much progress.

That was not our intention. It is our intention that major or significant changes be reflected, but not insignificant ones. That was the first question you asked me.

I think there will always be ambiguity about that.

Dr. GOLDBERG. May I interrupt at this point?

Mr. CUTTER. Certainly.

Dr. GOLDBERG. Has OMB drawn up a list of examples of what constitutes a major or significant change?

Mr. CUTTER. Yes, sir.

Dr. GOLDBERG. Could you submit that for the record?

Mr. CUTTER. Yes, sir.

Mr. FOUNTAIN. Without objection, it will be included in the record at this point.

[The information referred to follows:]

Monitored workload.—Under this method the distribution of salaries and wages applicable to sponsored agreements is based on budgeted or assigned workload, updated to reflect any significant changes in workload distributions. A monitored workload system used for salaries and wages charged directly or indirectly to sponsored agreements will meet the following standards:

(1) A system of budgeted or assigned workload will be incorporated into the official records of the institution and encompass both sponsored and all other activities on an integrated basis. The system may include the use of subsidiary records.

(2) The system will reasonably reflect workload of employees, accounting for 100 percent of the work for which the employee is compensated and which is required in fulfillment of the employee's obligations to the institution. Because practices vary among institutions and within institutions as to the total activity constituting a full workload—when expressed in measurable units, such as contact hours in teaching—the system will be based on a determination for each individual, reflecting the ratio of each of the activities which comprise the total workload of the individual. (But see Section H for treatment of indirect costs under the simplified method for small institutions.)

(3) The system will provide for modification of an individual's salary or salary distribution commensurate with any significant change in the employee's workload or the ratio of activities comprising the total workload. A significant change in an employee's workload shall be considered to include the following as a minimum: when work begins or ends on a sponsored agreement, when a teaching load is materially modified, when additional unanticipated assignments are received or taken away, when an individual begins or ends a sabbatical leave, prolonged sick leave, or leave without pay, etc. Short-term (such as one or two months) fluctuation between workload categories need not be considered as long as the distribution of salaries and wages is reasonable over the longer term such as an academic period. Whenever it is apparent that a change in workload will

occur or has occurred, the change will be documented over the signature of a responsible official and, if significant, entered into the system.

(4) The system will utilize workload categories reflecting activity which is applicable to each sponsored agreement, each indirect cost activity, and each major function of the institution.

(5) At least annually a statement will be signed by the employee, principal investigator, or responsible official, having first hand knowledge of the work stating that salaries and wages charged to sponsored agreements as direct charges, or that salaries and wages charged to both direct and indirect cost categories, or to more than one indirect cost category are reasonable.

(6) The system will provide for independent internal evaluations to insure that it is working effectively.

(7) In the use of this method an institution shall not be required to provide additional support or documentation for the effort actually performed, but is responsible for assuring that the system meets the above standards.

Mr. FOUNTAIN. Are there any other questions?

[No response.]

Mr. FOUNTAIN. Thank you very much, Mr. Cutter and Mr. Lordan, for your very forthright and informative responses to our questions. I think we know what your position is.

Mr. CUTTER. Mr. Chairman, thank you for giving us the opportunity to appear.

Mr. FOUNTAIN. I hope that when you go back things will continue to run as smoothly as possible.

Mr. CUTTER. Thank you, sir. So do I.

Mr. FOUNTAIN. Our next witness is Dr. William Sewell.

Dr. Sewell, you may come up and bring anyone you have with you.

Dr. Sewell is chairman of the National Commission on Research.

We are delighted to have you with us, Dr. Sewell, and will be glad to hear from you at this time. I believe you are accompanied by Mr. Gregory Fusco, your staff director.

Go right ahead.

STATEMENT OF DR. WILLIAM SEWELL, CHAIRMAN, NATIONAL COMMISSION ON RESEARCH; ACCOMPANIED BY GREGORY FUSCO, STAFF DIRECTOR

Dr. SEWELL. Mr. Chairman, my name is William Sewell. I appear before you today on behalf of the National Commission on Research. I serve as the chairman of the commission. I am also a professor of sociology at the University of Wisconsin—Madison, where I formerly served as the department chairman and later as the division chairman and then as chancellor of the university.

Mr. Fusco is the staff director of the commission and a former staff member of the U.S. Senate Committee on Human Resources.

We appreciate this opportunity to present our views to the subcommittee. We also appreciate the courtesy and assistance of the subcommittee staff in arranging our appearance.

The purpose of my testimony is primarily to inform the subcommittee of the objectives and activities of the National Commission on Research. Our findings and recommendations will be published at later dates. We believe that the subcommittee may find our inquiry to be useful in its deliberations.

Before presenting the main thrust of my remarks, I would like to commend the subcommittee, and particularly its chairman, for its dili-

gent and persistent interest in the important topic of the proper relationship between the Federal Government and the universities. The subcommittee and its chairman have established an enviable record of continuity of concern for a set of issues which have now grown to the forefront of public interest. The ability—or the lack of ability—of the Federal Government to support research in biomedical and basic sciences, and to maintain public confidence in these activities particularly that they are being well administered, is crucial to the physical, economic and social wellbeing of every American.

I am not here to say that the members of the National Commission on Research agree or disagree with the views expressed previously by the subcommittee as a result of its landmark oversight hearings on the National Institutes of Health in 1961, 1962, and 1967. But I should like to state for the record that the commission applauds the public inquiry into the matter represented by these hearings. Further, it is our view that such exposition and discussion will likely accrue to the benefit of the public, as well as to the Government and to the universities.

Mr. Chairman, it is for these reasons that I am honored to participate as a witness in hearings before the subcommittee.

The National Commission on Research is a private, nonprofit corporation established to develop specific recommendations to improve the relationship between the Federal Government and the Nation's research universities. Its members include leaders from universities, associations, and industry. These members serve without compensation. We have no Federal officials as members; rather, we have established a network of agency liaison persons from each executive branch mission agency concerned with university-based research.

Additionally, our liaison group includes representatives of the General Accounting Office, Office of Management and Budget, and the Office of Science and Technology Policy. We also communicate regularly with congressional committees with a jurisdiction which includes federally supported university research.

We are established by, but are financially and organizationally separate from, several national higher education organizations and research councils, including the Association of American Universities and the National Academy of Sciences. The details of this arrangement are provided in the materials which we appended to the statement.

Let me stress that we are not financially dependent on our establishing sponsors. Nor do we report directly to them. We receive our operating funds primarily from a number of private foundations, such as the Carnegie Corp. and the Ford Foundation. Thus, we have established ourselves as independent from both the universities and the Federal Government. We have done so in order that we might examine the interrelationships among the parties in a more objective way.

However, we have maintained close working relationships and cooperation with both the university research community and the executive and legislative branches of the Government. We have maintained these ongoing contacts so that our findings would be as realistic, as possible and so that our recommendations might receive serious consideration.

We anticipate that our recommendations will propose actions by the Congress, the Federal executive branch agencies, by university associations and organizations, and by the universities themselves.

I will speak briefly about the objectives of the commission.

Our overall goal is to make a positive contribution to the important relationship in supported research between the Federal Government and the university community. Observers on both sides have commented continually over the past decade that this relationship has deteriorated into an adversarial one. We believe this deterioration and adversarial relationship are bad for the Nation for a number of reasons.

One reason, which may be of particular interest to the members of the subcommittee, is that such an adversarial relationship seriously impedes the ability to obtain purposes which Congress has chosen in the Federal legislation which authorizes and funds university research. More broadly, these impediments make more difficult the proper stewardship relationship which Congress and the executive branch should and do exercise over public funds. It is also bad for the universities themselves, which have an equal stewardship responsibility when they are carrying out programs with public funds.

Government purposes and university purposes are distinct, but frequently overlap. In our nation, research universities exist to discover new knowledge, to teach and disseminate what is presently known, and to serve their respective constituencies. Each research university, whether State-supported or privately organized, has its unique set of constituencies to serve through its general mission of research and teaching.

As you, Mr. Chairman, and the members of your subcommittee are well aware, these university goals are often quite compatible with national and Federal goals. These shared goals have led to the growth in the post-World War II period of a very large and complex system of Federal programs supporting university research. Notable by its absence is a general Federal program for supporting university research. Rather, the universities receive funds to conduct research for particular Federal purposes as specified by law.

While I do not intend to dwell overly long on the following point, I should like to state for the record that the commission believes that the collaboration between the Government and the universities in support of research has been a remarkably fruitful and successful one. It is the impediments to continued success which are the subject of these hearings and the central concern of our commission.

Within the context I have just described, the National Commission on Research is examining the strengths and weaknesses of the relationship and what the participants hope to obtain from it, and will make a series of recommendations for improvements. These recommendations will be made to all of the participants: The Government, including the Congress, the executive branch mission agencies, and oversight offices; and the university community, including the universities themselves, their associations and organizations, and individuals who administer them and who teach and conduct research within them.

We have attached to the printed copy of our testimony a brochure which outlines these concepts.

The commission meets approximately monthly to conduct its business. Between these meetings, the members and staff are active in meetings with individuals, collecting documents, and preparing original documents for the use of the commission. Our monthly meetings are held in Washington or on selected campuses around the country. At these meetings, we hear and discuss presentations by invited speakers, review materials prepared by members and staff, and discuss among the members the many issues under consideration. We also carry out similar activities in our several subcommittees. In addition to formal meetings, we have extended our outreach to Government agencies, university leaders, and the research community by direct letters of inquiry and through invitations for comments published in professional journals.

We have been heartened by the positive reception to our efforts which we have received. Last week, our members met with Senator Lawton Chiles of Florida. The Senator was generous with his counsel and encouraged us to continue our work.

We have received excellent support and assistance from the General Accounting Office. Several of our members met earlier with the Comptroller General, Elmer Staats, and his senior staff to discuss accountability issues. This was a mutually beneficial exchange, and Mr. Staats referred favorably to the commission's activities in a recent major address on this topic which was subsequently published in Science magazine. I understand that the chairman earlier referred to this article and had it made a part of the hearing record.

The White House Office of Science and Technology Policy, which was established by congressional mandate, has been extraordinarily supportive and helpful. The Science Advisor to the President, Mr. Frank Press, had dinner with the commission earlier this year and encouraged us in our activities as well as made a number of helpful suggestions.

Other senior Government officials, including the National Science Foundation Director, Richard Atkinson, and Acting Undersecretary for the Department of Energy, John Deutch, have met with the commission and encouraged its work.

We have received a comparable reception from the university community. Our founding organizations have been extremely helpful and supportive without interfering with our independence.

The staffs of congressional committees and other congressional offices have also been helpful. I have already cited the contribution of the GAO. In like manner, the Library of Congress Congressional Research Service has provided insight and assistance. The commission has already consulted fruitfully with the staff of this subcommittee. We have also consulted with the Senate staff members on the Appropriations Committee, the Government Affairs Committee, and the Human Resources Committee.

The executive branch has been extremely helpful to us. In addition to the OSTP cooperation cited above, we have had continuing consultation with several offices in the Office of Management and Budget. A large number of officials in mission agencies, like the National Science Foundation, the National Institutes of Health, the Department of Energy, and the Department of Defense have been generous

in their advice and assistance. We have benefited greatly from the views of the senior officials in DHEW Office of the Inspector General, an office which this committee and the subcommittee chairman have helped establish.

In the university community, we have received continued support and advice from our sponsoring organizations, as well as expert assistance from other interested organizations, including particularly the National Association of College and University Business Offices and their council on government relations.

The commission has already had one campus meeting at the California Institute of Technology; other campus meetings are planned for the University of Wisconsin, Stanford University, the University of California, and probably several others. While our university-based members do not serve as official representatives of their home institutions, their faculties and administrators have been generous with their advice and assistance.

The publications of the commission are expected to be notable in their brevity. We hope to issue short and concise documents with a heavy emphasis on findings and recommendations.

Regarding the timing of our reports, we anticipate that the deliberations of our accountability subcommittee will be the first to produce commission findings and recommendations. The full commission will be considering these issues, and presently anticipates issuing its findings and recommendations on accountability in the late fall of this year.

In addition to the accountability area, we anticipate issuing several other reports at intervals of approximately 1 month to 6 weeks in duration. These additional topics will include: Peer review and other selection criteria; alternative funding mechanisms; the industry/university/Government relationship in research; research personnel development, particularly the development of young scientists; and perhaps other topics. In each of these areas, the commission has established a subcommittee to carry out the investigation and to report its views and findings to the full commission.

By issuing our documents while the commission remains in existence, we hope to be able to affect their dissemination and implementation in a more expeditious manner than the conventional method of issuing a final report and then passing out of existence.

In summary, we have already undertaken extensive consultation and collaboration with the university and Government communities. We hope that this will maintain our objectivity and allow us to present recommendations which are viable and realistic.

Mr. Chairman, my primary mission today is to inform the subcommittee about our existence and our plans. Because we have been in existence for only a short time, we do not, as yet, have findings and recommendations to present to the Congress or to other interested parties. However, I believe that it is a fair commentary that our work to date will lead to conclusions that changes may be useful in all quarters involved in federally supported research. This would include recommended changes in legislation, in the administration of Federal programs by the executive branch of Government, and in policies and practices of universities and their faculties.

Our decision to conclude our activities by the summer of 1980 and then go out of existence is indicative of our desire to dedicate ourselves solely to the tasks that I have outlined.

At this point in our deliberations, I believe I can make the following general observations on behalf of the commission.

First: We have found our subject matter to be startlingly complex and highly variable from one Federal program to another and from one university to another. The large number of Federal funding sources, each with its unique program purposes and methods of administration, creates a sometimes bewildering array of program requirements for university participants.

Also, universities, with their varying administrative patterns and management techniques, and their varying attitudes and traditions concerning faculty rights and responsibilities, are often baffling to the respective Federal agencies and their management and accounting personnel.

Second: As a result of these differences, there often exist gaps in the understanding of participants in the needs and purposes of the other sector. For example, an otherwise experienced and skillful Government official may lack a current understanding of university environment, while an otherwise competent campus-based researcher may be ignorant of the legislative purpose underlying the grant which he has received.

Third: We anticipate that our recommendations will include some elements which require an extended duration for their implementation. We believe that some actions may be initiated promptly but will require many years for their full effects to take place and to reap the anticipated benefits.

Fourth: We are hopeful that the commission will have a catalytic effect simply by creating a large number of thoughtful exchanges among participants in the Federal-university relationship which are absent of adversarial character and which are undertaken with a positive and mutually agreeable goal of improving the relationship and its results.

We already see evidence that this process is beginning. We are impressed with the goodwill and the desire of people from Government agencies and those from the universities who have appeared before our commission to improve this working relationship with a view toward increased research productivity on federally funded projects.

Mr. Chairman and members of the subcommittee, I have appeared today in order to alert you as to our activities. I shall conclude my statement in two ways: first, by an offer to be helpful to the subcommittee in its deliberations in any way you may find beneficial, and, second, to request the appropriate opportunity to present our findings and recommendations to the Congress when they have been completed.

It is our sincere hope that our presentation today has been of some assistance to your subcommittee, but equally that we have whetted your appetite for the findings and recommendations which we shall produce in the coming year.

Mr. Chairman, on behalf of the commission, I wish again to thank you for the opportunity to appear here today. My colleague, Gregory Fusco, and I would be pleased to attempt to answer any questions which you may have for us.

Mr. FOUNTAIN. Thank you, Dr. Sewell, for a very comprehensive description of the background and ongoing work of your commission—its origins, objectives, and methods of operation—and an indication that you will have some findings and recommendations in the future.

Without objection, the additional material you have supplied will be included in the record at this point.

[The material referred to follows:]

Staff

Gregory Fusco, Staff Director
Cynthia P. King, Staff Associate
Maryann M. Kowalczyk, Staff Assistant

**National
Commission
on
Research**

**"To develop specific
recommendations to improve
the relationships between the
Federal government and the
nation's research universities"**

National Commission on Research
2600 Virginia Avenue, N.W.
Suite 1003
Washington, D.C. 20037

THE NATIONAL COMMISSION ON RESEARCH is a private, non-profit corporation established to examine the relationship between the Federal government and the research universities and to suggest improvements.

Objectives:

The Commission members are developing a series of position papers which will describe the government funding process and university involvement in research over the past thirty years. Based on these studies, the Commission will make recommendations for potential improvements by all interested parties. Issues under investigation include the following:

- Scientific, administrative, and fiscal accountability;
- Peer review and other selection criteria;
- Alternative funding mechanisms and instruments;
- Industry/university/government relationships;
- Development of research personnel, including young investigators and non-tenure track faculty;
- Extent of agency involvement in technical monitoring, control of research and the publication process;
- Political and social factors affecting publicly supported research, and the environment required for research to flourish.

Background:

Over the past several years, the relationship between the Federal government and the research universities has become increasingly adversarial. Persons both within the government agencies that fund research and within the universities that receive some of those monies have become concerned about the effects of the deterioration of the relation-

ship. Government involvement in the support of research at these academic institutions has increased, as have the paperwork, regulations, and accountability.

Founding:

In an attempt to solve problems inherent in the government funding mechanisms and to improve the understanding between government agencies and universities involved in research, the National Commission on Research was founded in the latter half of 1978 by the Association of American Universities, the National Academy of Sciences, the American Council on Education, the National Association of State Universities and Land-Grant Colleges, the Social Science Research Council, and the American Council of Learned Societies. The Commission is funded through grants from several foundations. It works independently of its founders to examine the process by which the Federal government supports academic research and to propose changes designed to improve that process.

Members:

Twelve leaders with backgrounds in education, business, and government have accepted appointments as unpaid Commissioners and face the challenge of accomplishing the above goals in a relatively short period of time, with a target date of June, 1980. William H. Sewell, professor of sociology at the University of Wisconsin, serves as Chairman; and Cornelius J. Pings, Vice Provost and Dean of Graduate Studies at the California Institute of Technology, serves as Director. A listing of other Commissioners and staff members is attached.

Liaison persons to the Commission have been identified by several appropriate government agencies, including the National Science Foundation; the National Institutes of Health; the Department of Defense; the Department of Health, Education, and Welfare; the Department of Energy; the Office of Management and Budget; the General Accounting Office; and the Office of Science and Technology Policy.

Method of Operation:

Subcommittees have been appointed to investigate each of the basic issues and to draft position papers for discussion by the entire Commission. In addition to surveying the available literature, subcommittee members and staff meet with appropriate government officials, business leaders, and educators. At monthly meetings, invited speakers present their views on pertinent aspects of the listed topics or on the broad purview of the Commission. Liaison with numerous government agencies is maintained through telephonic contacts, correspondence, and attendance at Commission meetings which are held in Washington or on selected university campuses.

Results:

The Commission will publish and disseminate a series of position papers reporting on the conclusions from the investigations into the relationship between the Federal government and research universities. Specific recommendations for improvements in the relationship will be important sections of these position papers.

For Further Information:

Should you desire more detailed information on the National Commission on Research, please contact the Washington office located at 2600 Virginia Avenue, N.W., Suite 1003, Washington, D.C. 20037. The telephone number is (202) 337-3700.

Membership

William D. Carey

Executive Director
American Association for the Advancement of Science

Philip P. Cohen

Professor Emeritus
Department of Physiological Chemistry
University of Wisconsin Medical Center,
Madison

Dale R. Conson

President Emeritus
Cornell University

Edward E. David, Jr.

President
Exxon Research and Engineering Company

Carl Kayser (Consulting Member)

Vice Chairman and Director of Research
The Sloan Commission on Government and
Higher Education

Donald N. Langenberg

Professor of Physics
University of Pennsylvania

Ruth Barcan Marcus

Professor of Philosophy
Yale University

Charles A. Mosher

Public Programs Manager
American Association for the Advancement of
Science

Raymond L. Orbach

Professor of Physics
University of California, Los Angeles

Cornelius J. Pings (Director)

Vice Provost and Dean of Graduate Studies
California Institute of Technology

William H. Sewell (Chairman)

Professor of Sociology
University of Wisconsin, Madison

Monte C. Throdahl

Senior Vice President
Monsanto Company

Linda S. Wilson

Associate Vice Chancellor for Research
University of Illinois, Urbana

Mr. FOUNTAIN. I assume your accountability subcommittee has not arrived at any preliminary findings and recommendations which you can share with us today.

Dr. SEWELL. No, I think not, Mr. Chairman. They are reporting to us at our September meeting on their preliminary findings. We are hoping to work over those findings rather thoroughly and possibly have a draft by November—a finished draft—which we would be privileged to submit to your subcommittee.

Mr. FOUNTAIN. You noted on page 5 that Government purposes and university purposes are distinct, but frequently overlap. I think this is an important point that is not always fully understood. It is because of the differing objectives that the need for financial accountability arises.

Would you agree with that observation?

Dr. SEWELL. I would.

Mr. FOUNTAIN. You also noted that the Federal Government does not have a general program for supporting university research, that the existing research support is directed to particular Federal purposes, such as preventing disease and promoting the public health.

It is also true, is it not, that support for those particular Federal purposes is provided mainly through the project system, which further limits the way in which universities may spend the funds?

Dr. SEWELL. Yes, indeed, that is true. For the most part, Federal awards are made in response to applications by faculty members, and processed through the university. I might say that it is not a completely independent system for the faculty. Applications are then sent to those agencies for their consideration.

It is certainly my understanding, and I believe that of most of the members of our commission, that there is an obligation to use those funds according to the purposes that the Congress has specified.

Mr. FOUNTAIN. Is there any strong sentiment in the academic community for a program of general support for scientific research in universities?

Dr. SEWELL. That, I think, is a rather difficult question for me to answer.

I have spent some 42 years as a university professor, and I have been active with the National Science Foundation, and the National Institutes of Health. I think I was at one time or another a member or chairman of three different study sections and advisory committees. I do have a sense of the interests of the university community.

And I obviously cannot speak for the National Commission. I do not personally believe that the university community wants to make a basic change by which there would be general, and legislatively determined support for university research.

In general, I think the major mechanisms that are now in operation—the project grant system being the major one but also others such as legislatively determined formula programs with agricultural experiment stations, constitute a rather large and efficient system of ways in which the Federal Government supports research.

I think we need to improve those mechanisms wherever possible so that the greatest research product comes out of them. I also believe

that we have to try constantly to think of innovative ways in which research can be supported.

At the present moment, this commission is considering those ways. In several of the Government agencies—NIH and NSF—they are also trying some experimental mechanisms for research programs which we will carefully monitor and evaluate. We will probably make recommendations to the Congress, if legislation is necessary for the further development of these programs.

Mr. FOUNTAIN. I might say, in this connection, that Congress in 1972 enacted a program, with which you are familiar, of general support grants to State and local governments, known as general revenue sharing.

Dr. SEWELL. Yes.

Mr. FOUNTAIN. While this program is enthusiastically backed by the Governors, mayors, and county officials, and I have supported it, the Congress appears to be having some second thoughts on this Federal commitment of almost \$7 billion a year, primarily because of our present budget situation. Consequently, it might even be difficult to extend the revenue sharing program which expires in September 1980.

I relate this experience to point up the dangers of institutions, like State and local governments, becoming overly dependent on a large funding source which Congress can terminate at any time.

Do you know from the commission's studies whether university investigators would favor broader forms of Federal research support, such as institutional or department grants?

Dr. SEWELL. I cannot say as yet from the commission's study. We are examining this issue through our Subcommittee on Alternative Funding Mechanisms. From my own experience, I would say that investigators generally are comfortable with the present system of support, particularly that part in which they make the application, even though it goes through the university and even though the university is responsible for the funds that come. I think that is probably the preferred technique as far as most investigators are concerned.

On the other hand, I have encountered at my university and in my experience some people who have different views. Some people would rather have mandated funding, depending upon their own experience in formula-type grants.

I think that, in general, the granting system that is available has proved to be quite spectacularly successful. I think that over the years we have had increased difficulty in the administration of the system. It was much easier to manage when it was much smaller, obviously.

Mr. FOUNTAIN. Thank you very much for your statement.

We would be very glad to get the benefit of the results of your findings and also your recommendations.

I think the one key ingredient of your commission which impresses me most, on the basis of the way you have described it, is the fact that it appears to be free and independent. I think too often committees and commissions become an arm or a means of special interests to accomplish a given purpose. Your description of your commission would indicate that you are free to express your views uncontrolled or unsupervised, and not subject to being overruled by anyone who may have made a contribution to your labors.

Thank you very much for coming before us. We were delighted to have you.

Dr. SEWELL. Thank you.

You may be sure that we will continue to exert our independence.

Mr. FOUNTAIN. Good.

The subcommittee stands adjourned subject to the call of the Chair.

[Whereupon, at 12 noon, the subcommittee adjourned, to reconvene subject to the call of the Chair.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARINGS

[The following statement was submitted for the record by Harvard University, September 10, 1979.]

My name is Thomas O'Brien. I am the financial vice president of Harvard University, a position I have held since January 1977. Before joining the staff at Harvard I held a number of positions in Government and taught economics at Brandeis University. My responsibilities at Harvard include the administration of research grants and contracts and the University's accounting and control systems.

A great deal of criticism has been aimed recently at the way in which research universities account for Federal funds. Some of that criticism has been justified; much of it has not. Based in large measure on misunderstanding of how universities function, it has tended to reduce what was once a research partnership between the Federal Government and universities to a purchaser-supplier relationship which seems to become ever more adversarial.

At the same time, Federal auditing procedures have been criticized by the Congress and by the General Accounting Office. Congress is frustrated in its demand for assurance that Federal research funds are being used as intended and managed as required. Universities are wary of Federal auditors, worried about adverse publicity, and pressured to spend ever scarcer funds on more administration, the least productive and least popular of all activities.

I hope that these hearings and the recommendations which stem from them will start to reverse these disturbing trends. I have no illusions, however, that this task will be easy. As we work our way out of this frustrating situation all parties are going to have to understand each other better and each must find the flexibility to experiment with imaginative solutions to the very complicated problems we both face.

We do start from the same point, however. The need for accountable stewardship of the several billions of Federal dollars granted to universities every year is well recognized and accepted. That recognition and acceptance is nothing new to us; universities have long had a responsibility to assure that they adhere to the requirements of outside sponsors. Our fiduciary responsibility is one we have accepted for centuries and have carried out with distinction. Increasingly, accounting is being confused with accountability and that confusion is bringing academic research and the Federal Government into conflict. When relatively simple accounting errors are magnified into a crisis of accountability, everybody loses.

To a large extent, the way in which the various agencies of the Government award competitive project grants already ensures broad accountability. The peer review system works well in selecting promising projects. Program reviews and reporting requirements ensure that the results of the research meet the criteria of the grant. However, the very nature of the present highly competitive system of awarding research grants, a system which ensures the quality of both the winning proposals and resulting research, is complicated by accounting requirements which force us to compartmentalize costs and add administrative overhead in a manner that is often incongruous with the structure of a research university.

At Harvard, we must be able to demonstrate that every dollar expended in some 2,000 Federal grants a year was spent for the benefit of that project according to all regulations. We must be able to provide detailed time and effort records to justify salary expenditures. We are trying to do that and I believe we are succeeding remarkably well.

(259)

We have some difficulty, however, in succeeding totally because of the very nature of a university. Accounting standards for time and effort, for example, that are appropriate for a Government procurement contract with an aeronautics firm to produce a specific piece of hardware are probably not appropriate for a medical research grant. Often the time spent by a medical investigator simply does not break down very neatly. A doctor doing kidney research on a National Institutes of Health grant may spend 2 hours with a patient on dialysis in a teaching hospital accompanied by a post-doctoral student who is assisting him in his research. Exactly how does he charge that time? Is he teaching—is he practicing medicine—is he conducting research? Probably all three.

But in making this familiar and traditional argument—in defending principal investigators from filling detailed time reports—I believe we sound self-serving and miss the real point. The case made by the General Accounting Office and other Congressional inquiry shows that both Federal audits and private CPA audits of university research management leave much to be desired. The goal of the Federal auditors appears to be to justify their existence and prove their worth by finding disallowances while the accounting firms certify only that the financial statements of the universities are materially correct. Federal audits are also notoriously deficient in offering constructive criticism of university accounting systems and control procedures. Public accounting firms as part of their annual audit also provide management letters of widely differing degrees of specificity and quality. Normally certified financial statements do not assure that Federal research funds are accounted for and controlled in accordance with all contractual regulations; that is not their purpose.

False reassurance among university trustees from the annual audit and counterproductive incentives for Federal auditors combine to produce a system which may seriously damage basic scientific research and science education in the United States. The current problems must be resolved or the public's belief that universities stand for something more than mere self-interest could be lost and research and education may be fundamentally handicapped.

It might be more useful at this point to move from these general comments to our own recent experience. In 1978 auditors from the Department of Health, Education, and Welfare reviewed detailed accounting for Federal programs at Harvard. We have received the first part of their draft report. It covers the years 1975 to 1977 during which \$37.1 million was expended under Federal grants and contracts by our school of public health.

The incomplete draft recommended that approximately \$2.5 million (7 percent) in costs be disallowed because they could not find documentation to support the charges. We expect this amount to be reduced significantly after we have had the opportunity to present additional information, which, incidentally, was available during the audit. Further examination of our records will support most costs which the auditors were unable to substantiate. We will cite Federal regulations that support our actions and we will find and present documentation that the auditors failed to identify. When we have prepared our detailed response to the auditor's findings, I think that HEW will accept and approve as perfectly legitimate the large majority of the charges questioned. Unfortunately, the stigma of the early report is likely to remain and those responsible for negotiating a final settlement may be castigated as having somehow been less vigilant than the original auditors, not simply better informed.

The following examples of mistakes we have found in the audit show how the Federal auditors approach leads to final settlements which are small when compared with initial "findings."

1. The auditors recommended the disallowance of 12 transfers totalling \$19,000 (extrapolated value \$233,500) despite the fact that the charges, which were erroneous, had been correctly transferred out of the grant accounts by school of public health administrative personnel well before the auditors began their review. The auditors justified their findings in these instances with such statements as "this entry was made in error. It was eventually corrected on February 28, 1977. Since the erroneous entries fell in our statistically sampled journal entries we must consider it to be a bad entry" and "Transfer was found to be in error as evidenced by eventual transfer out of non-Federal account 3175 on January 28, 1977 by journal voucher 28464. For the purposes of this statistical sample the transaction such as this one when found to be erroneous, whether or not it is reversed or corrected at a later date, must be considered unallowable." In other words the sample was not taken of final university

accounts but of early uncorrected accounts before our own system had completed its work. If disallowances such as these were to go unchallenged the Government would be requesting repayment of costs which were not even paid by the Federal Government. It is difficult to understand and impossible to accept reasoning such as this.

2. The auditors recommended disallowing \$28,400 in costs (extrapolated value \$340,000) because:

A. HEW approval had not been received,

B. there was an overrun on the original account charged and an underrun to which the transfer was made, and

C. the transfer was to an account terminated in 1974.

In fact approval was received to charge the prior award as evidenced by the principal investigator's memoranda to HEW. While the auditors were correct that there was an overrun on the original account, in fact a substantial part of the costs involved should have been charged to the original account which was underrun. The transfers were made to correct the error. The original grant in fact did not close until 1977 and the unliquidated obligation, of which HEW was aware, was carried forward in accordance with Government procedures.

3. In two instances, the auditors claim that transfers of costs from grants to noncompeting continuation grants are not allowable. The Public Health Services own grant policy statement states that "a grantee may, at its own risk, incur obligations and expenditures prior to the beginning date of the budget period of a noncompeting continuation grant . . . and may charge such costs to that continuation grant." The risk to the grantee is that the continuation grant will not be funded, in which case the grantee cannot recover these funds. In the instances cited, however, the continuation grants were funded and the transfers followed Government-mandated procedures to the letter.

4. The preliminary report comments on expenses of \$102,300 incurred under one grant for services of personnel at a university in Israel by saying "Documentation was not available to either support the propriety of the rates of salaries paid or whether the services were rendered." However, the University's files—which were available to and reviewed by the HEW auditors—contain statements signed by officers of that university certifying to the amount of personnel effort allocable to this project. As the entire basis for this project involved cooperation between Harvard and the university in question, and as this cooperation is documented throughout both the project proposal and reports, it is difficult indeed to understand why there are questions as to whether the services were rendered.

5. The preliminary audit questions numerous charges to research grants for services of consultants on the grounds that documentation of the need for these consultants is not present. Yet in many of these cases, the need for the consultants, together with the names and qualifications of the persons to be employed, were included in the original grant application and were part of the basis on which the grant was awarded. Unfortunately this penchant for questioning after the fact items agreed to beforehand is one of the continuing problems universities have with Government auditors.

On a broader level the audit of the School of Public Health exemplifies many of the problems already documented in reports from your full Committee on Government Operations and from the General Accounting Office. The difficulties we have experienced include HEW's delays in initiating, executing, and reporting the audit; its refusal to keep agreements on notification and communications; its failure to use or even to take note of improvements in our systems to account for Federal grants; and its specific errors and oversights in actually making the audit. The fact that these problems are so general suggests that they result from much more deep-seated causes than the qualities of individual auditors or their management.

The Controller General's report to Congress, "Grant Accounting: A Maze of Inconsistency, Gaps, and Duplication that Needs Overhauling" (June 15, 1979) points out some of these underlying weaknesses in the Federal audit process: (1) inflexibilities and inconsistencies in grant audit laws and agency regulations, (2) the uncoordinated Federal approach to grant auditing, (3) the poor use and possible shortage of audit resources, and (4) the failure of the Government to see that its grantees make or have audits made that satisfy Federal needs. The report also mentions problems in the Federal audit process, noting that auditors take an insufficiently broad view of the institution being audited and goes on to criticize auditors' failures to include meaningful surveys of the

institutions' existing systems of financial controls and grant management capabilities.

The report by the Committee on Government Operations, "Failure of Government Departments and Agencies to Follow-Up and Resolve Audit Findings" (House Report 96-279, June 18, 1979, p. 21) notes that "contract auditors, in their advisory role to the contracting officers, generally feel that they have discharged their responsibility when the reports are issued and the recommendations made to the procurement office." The role of the audit agency is concluded at this point, and other HEW representatives conduct negotiations to conclusion—conclusions that have typically documented that most of that money was in fact well spent and well accounted. Some witnesses have implied that in such cases the resolution process is at fault rather than the audit process, which seems rather like condemning the jury for a verdict of not guilty rather than faulting the prosecutor for baseless accusations.

Everyone involved agrees that the HEW audit agency does not have the resources to conduct annual audits of each grantee. In fact, it has not even been possible to establish a schedule of rotation among institutions or among years or department activities at a particular institution. As a result, people at the institutions see auditors so infrequently that they do not understand the purpose of their activities. Similarly, auditors visit any one institution so infrequently that they must relearn their job with each new audit. They have no standards against which to conduct their audit. Imagine the effect if a private corporation were audited so irregularly and infrequently that new staff conducted every audit. The result would probably be horrendous—more effort would be spent in trying to understand the systems than in accurately identifying and proposing solutions to problems.

Our experience at Harvard leads us to the perception that the Federal auditor sees his objective not to review the quality of research management but to find disallowances. But this does not have to be the case. For example, while HEW has been auditing our school of public health, NIH has performed a review of expenditures in one department of our medical school. The comments made by the auditors—who reviewed precisely the same university systems—are similar in direction but widely different in degree. Essentially the same areas for potential improvement are cited in both audits, but one concludes that funds have been well managed while the other concludes that they have not. In essence, the question becomes one of degree—how good is good enough? What is the standard?

In our most recent fiscal year, Harvard expended approximately \$96 million under federally sponsored agreements. About 250,000 charges were made to our accounting system to accomplish this—an average of approximately \$360 per charge. If an auditor reviews all of these 250,000 charges, some will inevitably be in error. However, if an auditor samples 250 of these charges, one-tenth of 1 percent, and finds only three of them in error, can one then legitimately conclude that there is an error rate of slightly more than 1 percent and recommend a \$1 million disallowance? Is that really what is intended? It would seem that a complex system that worked correctly 247 out of 250 times should be complimented rather than penalized.

The overwhelming weight of professional opinion is that the objective of an audit should be to review financial control systems to assure that they are designed to fulfill all the fiduciary requirements that the grantee has accepted and to assure that those control systems are working as designed. It would be more constructive if auditors were to report on the quality of research management and make suggestions for improvement. While they should certainly object strenuously to any perceived mismanagement and insist upon changes or refunds when they are right, searching for disallowances should not be the principal objective. The proper goal of both the government and the institution is to determine the adequacy of management and correct it if it proves inadequate.

In this way, a university grantee will see the audit in a far more positive light and not feel forced into a defensive position. Discussion of financial management can then assume the same positive tone as do discussions with program officers over the substance of the research.

I believe that an ideal system of Government audit would focus on reviewing an institution's control system for managing Federal funds and then certifying that those systems are or are not adequate to assure that all grant and contract requirements are adhered to. The emphasis would be on identifying, penalizing, and correcting weak systems. After the Government certifies that

an institution's system is capable of meeting Government standards of accountability, auditors would still be able to review individual transactions, monitor accuracy and documentation, and ensure that the system worked as intended.

By shifting the emphasis toward understanding, criticizing, and improving institutional financial systems, the Government would be promoting efficient structural change. The current system fails to do that.

We are conducting an experiment with HEW and a public accounting firm that is designed, in part, to explore this area. We expect it to provide audits that are even more timely, complete, professional, and accurate. We hope that as this objective is achieved we can avoid acrimonious charge and countercharge and raise the level of discussion to that of a reasoned understanding that makes an effective partnership.

Despite our problems I hope it is clear that I do not believe the present situation is hopeless. Despite occasional acrimony and misunderstandings I sincerely believe we are probably a lot closer to resolving these problems than we were only a few short years ago. A review of the testimony you heard in July supports that optimism.

Dr. Max Binkley from Colorado State described the movement toward greater accountability at universities all across the country.

Chancellor Alexander Heard of Vanderbilt outlined for the subcommittee the recent experiments permitting "master grants" between the National Science Foundation and six participating universities.

Thomas Bartlett, president of the Association of American Universities, noted Senate legislation to encourage NIH to make experiments similar to those of NSF allowing some logical pooling of funds within departments or on related projects.

Henry Kirschenmann, Director of the Office of Grant and Contract Financial Management at HEW commented approvingly on OMB's recent efforts to force "Federal monitoring to focus more on programmatic results and overall cost effectiveness—while getting away from the old 'green eyeshade' preoccupation with input details."

And finally the creation of the National Commission on Research offers a natural focus for university and Government officials to work out the complexities of implementation in an atmosphere of mutual understanding and appreciation of our common goal.

That goal is effective and accountable research. Though we may approach it from different perspectives, we are all working to the same end. As long as we don't lose sight of that, I believe we will always be able to resolve the differences that may arise in pursuit of the goal.

